



**TRIBHUVAN COLLEGE
OF
ENVIRONMENT & DEVELOPMENT SCIENCES
NALANDA UNIVERSITY CENTRE, NEEMRANA**



Program Structure

B.Sc. (Hons.) Environmental Science

Academic Year: 2024-25 Onwards

Department of Environmental Sciences

**Tribhuvan College of Environment and Development Sciences
Nalanda University Centre
Neemrana, Rajasthan – 301705**



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PROGRAM STRUCTURE

B.Sc. (Hons.) Environmental Science

Sr. No.	Heading	Particulars
1	Title of the Course	B.Sc. (Hons.) Environmental Science
2	Eligibility for Admission	12th (Science or Equivalent)
3	Passing Percentage	40%
4	Semesters	I to VIII
5	Level	UG
6	Pattern	04 years & 08 semesters CBCS
7	To be implemented from	From the academic year 2024-25 (in a progressive manner)



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SEMESTER I			
Course Code	Course Title	Type/Stream	Credit(L+T+P)
EVS101	Ecology, Ecosystem and Biodiversity	Major Stream	4 (3+0+1)
EVS102	Basics of Earth Sciences	Major Stream	4 (3+0+1)
EVS103	Energy Resources and their Conservation	Major Stream	3 (3+0+0)
EMS101	Ecosystem and Sustainability	Minor Stream	4 (3+1+0)
MDC101	Foundation Course in Mathematics	Multidisciplinary	3 (3+0+0)
AEC101	English and Communication Skills – I	Ability Enhancement	2 (2+0+0)
SEC101	Fundamentals of Computer Science	Skill Enhancement	3 (2+0+1)
VAC101	Constitutional Values, Right and Duties	Value Added	2 (2+0+0)
Semester Credits			25

SEMESTER II			
Course Code	Course Title	Type/Stream	Credit(L+T+P)
EVS201	Environmental Chemistry	Major Stream	3 (2+0+1)
EVS202	Climate Science and Meteorology	Major Stream	3 (3+0+0)
EVS203	Analytical Techniques in Environmental Sciences	Major Stream	3 (2+0+1)
EMS201	Climate Change Policy Framework	Minor Stream	4 (3+1+0)
SEC201	Python Programming	Skill Enhancement	3 (2+0+1)
AEC201	English and Communication Skills – II	Ability Enhancement	2 (2+0+0)
VAC201	Introduction to Indian Knowledge System	Value Added	2 (2+0+0)
Semester Credits			20
UG Certificate Credits			45



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SEMESTER III			
Course Code	Course Title	Type/Stream	Credit(L+T+P)
EVS301	Environmental Microbiology and Biotechnology	Major Stream	4 (3+0+1)
EVS302	Fundamentals of Remote Sensing	Major Stream	3 (2+0+1)
EVS303	Environmental Pollution	Major Stream	4 (3+0+1)
EMS301	Climate Resilience and Adaptation of Natural Resources	Minor Stream	4 (3+1+0)
MDC301	Innovation and Entrepreneurship	Multidisciplinary	3 (3+0+0)
SEC301	Artificial Intelligence and Machine Learning	Skill Enhancement	3 (2+0+1)
AEC301	Academic Writings	Ability Enhancement	2 (2+0+0)
VAC301	Health and Wellness	Value Added	2 (2+0+0)
Semester Credits			25

SEMESTER IV			
Course Code	Course Title	Type/Stream	Credit(L+T+P)
EVS401	Polar Science and Glaciology	Major Stream	3 (3+0+0)
EVS402	Solid and Hazardous Waste Management	Major Stream	3 (2+0+1)
EVS403	GIS, Satellite Based Navigation & Applications	Major Stream	3 (2+0+1)
EMS401	Occupational Health Hazards, Safety and Compliance	Minor Stream	4 (3+1+0)
AEC401	Basics of Intellectual Property Rights	Ability Enhancement	2 (2+0+0)
VAC401	Ethics and Values	Value Added	2 (2+0+0)
SIS401	Summer Internship*	Major Stream	3 (0+0+3)
Semester Credits			20
UG Diploma Credits			90



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SEMESTER V			
Course Code	Course Title	Type/Stream	Credit(L+T+P)
EVS501	Environmental Laws, Policies and Governance	Major Stream	4 (3+0+1)
EVS502	Environmental Hazards and Disaster Management	Major Stream	3 (3+0+0)
EVS503	Landscape Ecology	Major Stream	3 (2+0+1)
EVS504	Environmental Economics	Major Stream	3 (3+0+0)
EVS505	Restoration Ecology	Major Stream	4 (3+1+0)
EMS501	Applications of Ecological Restoration	Minor Stream	4 (3+1+0)
MDC501	Statistics and Data Analysis	Multidisciplinary	4 (3+0+1)
Semester Credits			25

SEMESTER VI			
Course Code	Course Title	Type/Stream	Credit(L+T+P)
EVS601	Environmental Oceanography	Major Stream	3 (3+0+0)
EVS602	Water and Wastewater Treatment	Major Stream	4 (3+0+1)
EVS603	Wetland Conservation and Management	Major Stream	3 (2+1+0)
EVS604	Air Pollution: Monitoring and Management	Major Stream	4 (3+0+1)
EVS605	Urban Ecosystems and Sustainability	Major Stream	3 (3+0+0)
EMS601	Desert Ecology and its Restoration	Minor Stream	4 (3+1+0)
Semester Credits			21
UG Degree Credits			136



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SEMESTER VII			
Course Code	Course Title	Type/Stream	Credit(L+T+P)
EVS701	Environment Management and Auditing	Major Stream	4 (3+1+0)
EVS702	Environmental Impact and Risk Assessment	Major Stream	4 (2+1+1)
EVS703	Research Methodology	Major Stream	4 (3+0+1)
EVS704	Dissertation Proposal	Major Stream	Non Credit
EMS701	Circular Economy and Life Cycle Assessment	Minor Stream	4 x2 (3+0+1)
EMS702	Corporate Social Responsibility and ESG		
Semester Credits			20
SEMESTER VIII			
DIS801	Dissertation	Major Stream	20
Semester Credits			20
Major Stream Credits			86
Minor Stream Credits			32
Multidisciplinary Course Credits			10
Skill Enhancement Course Credits			09
Ability Enhancement Course Credits			08
Value Added Course Credits			08
Summer Internship			03
Dissertation			20
Total B. Sc. (Hon) EVS Credits			176

- Note:** i. Practicals will be based on the theory courses taught during the semester
ii. For gold medal a student has to pass in all the subjects (major, minor stream, multidisciplinary, skill enhancement, ability enhancement, value added courses)