



**4Year B.Sc. (Honours) (Major in Environmental Science)
{2025 Pattern}**

Minutes of the PAC Meeting held on 10.12.2024

Meeting No.: 03

Date: 10th Dec, 2024

Time: 12.00 pm to 01.30 pm

The PAC Meeting for 4 Year B.Sc. (Honours) (Major in Environmental Science) {2025 Pattern} programme as per NEP 2020 of **School of Sciences** was held online on **Tuesday, 10-12-2024 at 12:00 PM** at school meeting hall. Following members and invitees were present,

SN	Name of PAC Members	Designation
01	Dr. Chetana Kamlaskar	(Chairperson) and Member
02	Dr. Pravin Nalawade	Member
03	Dr. Ashish Mane	Member
04	Dr. Kailas Dandge	Member
05	Dr. Jagruti Chavan	Academic Coordinator (Environment Science) and Invitee
06	Ms. Minakshi Kadel	Invitee
07	Mr. Ravindra Bharsat	Invitee
08	Ms. Tejaswi Kadam	Invitee
09	Dr.Dnyaneshwar Bhusanur	Invitee
10	Dr. Bharat More	Invitee

Following members could not attend the meeting due to their other engagements.

01	Dr. Sunanda More	Member
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Dr. Chetana Kamlaskar, Director of the School of Sciences and Chairperson of the PAC, first welcomed PAC members and introduced the purpose of the meeting. During the meeting, following items were discussed for the collective decision on the proposed content of each course in the 4 Year B.Sc. (Honours) (Major in Environmental Science) {2025 Pattern} programme.

SN	Details of Items	Resolution								
1	Agenda 1: To finalize and approve the credit distribution, evaluation pattern and detailed syllabus for proposed Minor and VSC courses in Environmental Science discipline at semester 01 to 06 as per NEP2020	The PAC members unanimously finalized and approved the syllabus of the credit distribution, evaluation pattern, detailed syllabus (semester 01 to 06) related to Minor of Environmental Science at semester 01 to 06 as per NEP2020. A few suggestions, which were retained after the finalization of the programme structure are as follows : • MINOR COURSES <table><tr><th>Sem</th><th>As per suggestion by PAC</th></tr><tr><td>III</td><td> EVS20M₁: Wildlife Biology - Replacing CPCB and SPCB with FRI and WII in credit 02-03 (Conservation Efforts by Government). - Arrangement of all units in credit 01 sequentially according to logical flow. EVS20M₂: Lab Activities based on EVS10M₁ It was suggested to make the aim of each activities specific. Accordingly the changes were incorporated. </td></tr><tr><td>IV</td><td> EVS20M₃: Water & Noise Quality - In unit 01-04 (Government Initiatives for Control of Water Pollution) the International agencies i.e. IWMI, UNEP, WHO, UNDP and National agencies CPCB, SPCB, Ministry of Jal Shakti, has been added. - In unit 02-04, Control of Noise Pollution, Industrial noise control is added. EVS20M₄: Lab Activities based on EVS20M₃ - Mapping of Environmental Noise levels in given study area. - Calculate the Time weightage average for Noise assessment. </td></tr><tr><td>V</td><td> EVS30M₁: Air & Soil Quality - Rearrange the points under unit 01-04 Air pollution control as: Control of particulate matter, Control of gaseous pollutant and Control of vehicular exhaust. - Addition of Air quality standards and Air pollution monitoring criteria in credit 01. </td></tr></table>	Sem	As per suggestion by PAC	III	EVS20M₁: Wildlife Biology - Replacing CPCB and SPCB with FRI and WII in credit 02-03 (Conservation Efforts by Government). - Arrangement of all units in credit 01 sequentially according to logical flow. EVS20M₂: Lab Activities based on EVS10M₁ It was suggested to make the aim of each activities specific. Accordingly the changes were incorporated.	IV	EVS20M₃: Water & Noise Quality - In unit 01-04 (Government Initiatives for Control of Water Pollution) the International agencies i.e. IWMI, UNEP, WHO, UNDP and National agencies CPCB, SPCB, Ministry of Jal Shakti, has been added. - In unit 02-04, Control of Noise Pollution, Industrial noise control is added. EVS20M₄: Lab Activities based on EVS20M₃ - Mapping of Environmental Noise levels in given study area. - Calculate the Time weightage average for Noise assessment.	V	EVS30M₁: Air & Soil Quality - Rearrange the points under unit 01-04 Air pollution control as: Control of particulate matter, Control of gaseous pollutant and Control of vehicular exhaust. - Addition of Air quality standards and Air pollution monitoring criteria in credit 01.
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			3. Addition of 2-3 soil management practices in unit 02-04 (Soil conservation techniques)
			EVS3oM₂:Lab Activities based on EVS3oM₁ 1. Determination of Organic Carbon of soil sample. 2. Determination of Acidity & Alkalinity of soil sample. 3. Determination of Standard Plate Count of soil sample.
		VI	EVS3oM₃:Environmental Governance 1. Replacing onsite and offsite audit with pre-audit, audit, post audit
			EVS3oM₄: Lab Activities based on EVS3oM₃ 1. Unit 01-01, 01-02 & 01-03 were arranged sequentially. 2. Prepare an Environmental or Green Audit report for College/Industry/ Government Building as per Rule 14 of the Environment (Protection) Rules, 1986.
		• VOCATIONAL SKILL COURSES	
		Sem	As per suggestion by PAC
		I	VSC101:Environmental Microbiology 1. Replacement of 02-02 practical based on Biodegradation by 'To study concept of most probable number (MPN).'
			2. Addition of one practical in credit 02 entitled as 'Study the role of microorganism in waste water treatment.'
		II	VSC102: Basics of Environmental Audit 1. One practical was suggested to add in credit 02 entitled as 'Concept of Carbon Footprint.'
		V	VSC301: Basics of EMS 1. To study about Environment, Health and Safety (EHS). 2. To understand the Sustainability report in detail.

		Also the PAC members advised few minor corrections in other part of the Minor & VSC course that has been incorporated accordingly.
	Action Taken: The credit distribution and syllabus of Minor courses and VSC courses has been updated following the discussion in the PAC meeting. Refer Appendix II for updated syllabus.	
3	Agenda 3: Identification of Writers/ Editors for SLM development task	The PAC members unanimously gave their consent for the writing/editing of the Self Learning Material (SLM) development for the proposed courses. They also agreed to recommend experts for the new courses, in due course of time. It was also resolved to authorize the Director of this School to enrich and update the list of writers/editors for the Self Learning Material (SLM) development task from time to time as per the University Policy decisions/norms.

Meeting ends with vote of thanks by **Dr. Jagruti Chavan.**

Thank You



(Dr. Chetana Kamlaskar)

Chairperson, PAC

B.Sc. (Honours)

(Major in Environmental Science)

APPENDIX I: PROGRAMME STRUCTURE:
ENVIRONMENTAL SCIENCE: MAJOR, ELECTIVES, MINOR, OE, VSC, SEC, AEC, VEC, OJT, FP, CC, CEP, IKS COURSES.
{2025 PATTERN}

Level	Sem	Major				Minor	OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem								
		Mandatory		Electives																			
4-5	I	EVS101: Ecology & Ecosystem (T)	4	-		-		OE101: Biodiversity of India (T)	2	VSC101: Environmental Microbiology (TW)	2	AEC101: English Communication-I (T)	2	CC101: Photography Techniques & Bird Watching (TW)	2	22							
		EVS102: Lab Activities on EVS101 (P)	2					OE102: Futuristic Approach for Smart City (T)	2	SEC101: Basic Instrumentation Skills (TW)	2	VEC101: Environmental Education-I (T)	2										
	II	EVS103: Environmental Chemistry & Physics (T)	4	-		EVS10M1: Fundamentals of Environment (T)	2	OE103: Environmental Economics (T)	2	VSC102: Basics of Environmental Audit (TW)	2	AEC102: English Communication-II (T)	2				CC102: Yoga (TW)	2	22				
		EVS104: Lab Activities on EVS103 (P)	2					OE104: Ecotourism (T)	2	SEC102: MS–Excel with AI (TW)	2	VEC102: Environmental Education-II (T)	2										
	Cum. Cr.		12		00		02		08		08		10		04		44						
5.0	III	EVS201: Biodiversity Conservation (T)	4	-		EVS20M1: Wildlife Biology (T)	2	OE201: Sustainable Development Goal & Society (T)	2	VSC201: Soil Health Management(P)	2	AEC201: Modern Indian Language- I (T)		EVS204: Field Project (TW)	2	22							
		EVS202: Environment: Indian Culture & Traditions (IKS)(T)	2			EVS20M2: Lab Activities on EVS20M1 (P)	2							CC201: Applied Arts (TW)									
		EVS203: Lab Activities on EVS201 (P)	2																				
	IV	EVS205: Pollution Control Technologies (T)	4	-		EVS205M3: Water & Noise Quality (T)	2	OE202: Environmental Law (T)	2	SEC201: Intellectual Property Rights (T)	2	AEC202:Modern Indian Language- II (T)	2	EVS208: Bee Keeping (TW)	2	22							
		EVS206: Natural Resource Management (T)	2			EVS20M4: Lab Activities on EVS20M3(P)	2							CC202: Astronomy for Beginners (TW)	2								
		EVS207: Lab Activities on EVS205 (P)																					
	Cum. Cr.		28		00		10		12		12		14		12		88						

Level	Sem	Major				Minor	OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem	
		Mandatory		Electives												
5.5	V	EVS301: Environmental Legislation & Audit(T)	4	EVS304: Environmental Geosciences (T) OR EVS305: Alternate Energy Resources (T) OR EVS306: Urban Ecosystem & Sustainable Development (T)	4	EVS30M1: Air & Soil Quality (T)	2			VSC301: Basics of EMS (P)	2			EVS307: Field Project (TW) OR EVS308: Awareness of Sustainable Development Goals (TW)	2	22
		EVS302: Environment Impact assessment(T)	2			EVS30M2: Lab Activities on EVS30M1(P)	2									
		EVS303: Lab Activities on EVS301, EVS302 & Elective (P)	4													
	VI	EVS309: Remote Sensing & GIS (T)	4	EVS312: Atmospheric Sciences (T) OR EVS313: Environmental Statistics (T) OR EVS314: Environmental Health, Toxicology & Safety (T)	4	EVS30M3: Environmental Governance (T)	2					EVS315: On-Job Training (TW)	4	22		
		EVS310: Environmental Biotechnology (T)	2			EVS30M4: Lab Activities on EVS30M3(P)	2									
		EVS311: Lab Activities on EVS309, EVS310 & Elective (P)	4													
Cum. Cr.		48		08		18		12		14		14		18		132

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem	
		Mandatory		Electives													
6.0	VII	EVS401: Environmental Science and Environmental Biology (T)		4	EVS406: Environmental Education, Policies & Legislation (T) OR EVS407: Management of Water Resources (T)		4	RES405: Research Methodology (T)		4					22		
		EVS402: Natural Resources and Their Conservation (T)		2													
		EVS403: Biodiversity and Conservation (T)		4													
		EVS404: Lab Activities on EVS 401, EVS 402 & EVS 403 (P)		4													
	VIII	EVS409: Environmental Chemistry (T)		4	EVS415: Environmental Sustainability (T) OR EVS416: Solid & Hazardous Waste Management (T)		4						EVS413: On-Job Training (TW)	4	22		
		EVS410: Environmental Geosciences & Computer Applications (T)		2													
		EVS 411: Herbal Wealth (T)		4													
		EVS412: Lab Activities on EVS 409, EVS 410 & EVS 411 (P)		4													
Cum. Cr.		76			16		22		12		14		14		22		176

APPENDIX II:
SYLLABUS OF VXXX: B.Sc. (HONOURS) (MAJOR IN ENVIRONMENTAL SCIENCE)
{2025 PATTERN}

Refer the syllabus file attached with this mail separately.