



4Y B.Sc. (Honours) (Major in Zoology) (2025 Pattern) Programme

Minutes of the PAC Meeting held on 11.09.2024

Meeting No.: 02

Date: 11th September, 2024

Time: 3.00 pm to 5.30 pm

The PAC Meeting for 4Y B.Sc. (Honours) (Major in Zoology) (2025 Pattern) Programme as per NEP 2020 of **School of Sciences** was held online on **Wednesday, 11-09-2024 at 3:00 PM**, School meeting hall. Following members and invitees were present in person,

01	Dr. Chetana Kamlaskar	(Chairperson) and Member
02	Prof. (Dr.) Resham Bhalla	Member
03	Prof. (Dr.) Chetan Jawale	Member
04	Dr. Somnath Waghmare	Member
05	Mr. Ravindra Bharsat	Academic Coordinator (Zoology) and Invitee
06	Dr. Jagruti Chavan	Invitee
07	Ms. Minakshi Kadel	Invitee
09	Ms. Tejaswi Kadam	Invitee

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

01	Dr. Sunanda More	Member
02	Dr. Dnyaneshwar Bhusanur	Invitee

Dr. Chetana Kamlaskar, Chairperson and Member of the PAC first welcomed PAC members and introduced the members about the purpose of the meeting. During the meeting following items were discussed.

SN	Details of Items	Resolution																
1	Agenda Item 1: To finalize and approve the detailed syllabus (semester 01 to 03) related to Open Elective (OE) courses under Zoology programme for other faculty, as per NEP2020 guidelines.	The PAC members unanimously finalized and approved the proposed Open Elective (OE) Courses along with their syllabus in the Zoology discipline for the learners other than Zoology Major, in accordance with NEP2020 guidelines. The PAC members provided the following suggestions: 1. It is recommended that the Open Elective course OE104: Nutrition, Health & Hygiene be replaced with a new course on 'Goat Farming'. 2. Additionally, it is suggested to rearrange the sequence of Open Elective courses to align with each semester, as detailed below: <table border="1"> <thead> <tr> <th>Se m</th><th>As per Programme Structure</th><th>As per Suggestion</th></tr> </thead> <tbody> <tr> <td rowspan="2">01</td><td>OE101: Vermicomposting Management</td><td>OE101: Vermicomposting Management</td></tr> <tr> <td>OE102: Poultry Management</td><td>OE102: Sericulture Management</td></tr> <tr> <td rowspan="2">02</td><td>OE103: Sericulture Management</td><td>OE103: Poultry Management</td></tr> <tr> <td>OE104: Nutrition, Health & Hygiene</td><td>OE104: Goat Farming</td></tr> <tr> <td>03</td><td>OE201: Dairy Production & Management</td><td>OE201: Dairy Production & Management</td></tr> </tbody> </table> 3. The list of OE courses will be added in the future as per demand of the learners.	Se m	As per Programme Structure	As per Suggestion	01	OE101: Vermicomposting Management	OE101: Vermicomposting Management	OE102: Poultry Management	OE102: Sericulture Management	02	OE103: Sericulture Management	OE103: Poultry Management	OE104: Nutrition, Health & Hygiene	OE104: Goat Farming	03	OE201: Dairy Production & Management	OE201: Dairy Production & Management
Se m	As per Programme Structure	As per Suggestion																
01	OE101: Vermicomposting Management	OE101: Vermicomposting Management																
	OE102: Poultry Management	OE102: Sericulture Management																
02	OE103: Sericulture Management	OE103: Poultry Management																
	OE104: Nutrition, Health & Hygiene	OE104: Goat Farming																
03	OE201: Dairy Production & Management	OE201: Dairy Production & Management																
	Action Taken: The Programme structure and syllabus have been updated following the discussion in the PAC meeting. Refer Appendix I & II for the revised programme structure & syllabus.																	
2	Agenda Item 2: To discuss & finalize Discipline specific Indian Knowledge System (IKS) course position within the Zoology programme structure.	The PAC members unanimously finalized the position of the proposed Discipline specific Indian Knowledge System (IKS) Course at semester 03, of the following proposed Zoology programmes as per NEP2020 guidelines, with few suggestions about courses in programme structure of: i) 4 Year B.Sc. (Honours) (Major in Zoology and Minor in Chemistry) ii) 4 Year B.Sc. (Honours) (Major in Zoology and Minor in Botany) The Following suggestions were made by the																

		PAC members: 1. In semester 03, it is advised that ‘ZOO202: Wildlife Conservation’ course be modified from 02 credit to 04 credit and offered as Discipline Specific Elective (DSE) course in Semester 05. 2. It is also suggested to introduce a new course ‘Biostatistics & Bioinformatics’ and to be offered as Discipline Specific Elective (DSE) course in Semester 06. 3. Additionally, it is recommended that ‘Skill Enhancement Course (SEC): Vermiculture Management’ in the form of Term Work (TW) be offered in Semester II.
	Action Taken: The Programme structure and syllabus have been updated based on the discussions in the PAC meeting. Refer Appendix II for Programme structure and revised syllabus.	
3	Agenda Item 3: To finalize the courses and syllabus from last verticals (VSC, SEC, AEC, VEC, generic IKS, OJT, FP, CEP, CC, RP) that will be offered common for all 4Y UG B.Sc. (Honours) programmes of School of Sciences	Few courses from the last verticals (SEC, AEC, VSC, IKS, CC, CEP etc.) that will be offered common for all programmes have been discussed and approved along with their syllabus. To finalize these courses at the university level, if required, the PAC members unanimously gave authority to the School Director to update the courses in accordance with the university decision as needed.
	Action Taken: The syllabus has been updated as per the discussion in the PAC meeting. Refer Appendix II for updated syllabus.	
4	Agenda Item 4: 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) for the proposed B.Sc. (Honours) (Major in Zoology) programme. The PAC members have given their consent for SLM development. 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 **Mr. Ravindra Bharsat**

Thanks...



(Dr. Chetana Kamlaskar)

Chairperson, PAC 4Y. B.Sc. (Honours)(Major in Zoology)

APPENDIX I: PROGRAMME STRUCTURE OF VXXX: B.Sc. (HONOURS) (MAJOR, ELECTIVES, MINOR, OE, VSC, IKS IN ZOOLOGY) **{2025 PATTERN}**

Abbreviations: Yr.: Year; Sem.: Semester; Cumulative Credits: Cum. Cr. ; T- Theory Course;P- Practical course; TW-Term Work; PW- Project Work

Level	Sem	Major				Minor	OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem	
		Mandatory		Electives												
4-5	I	ZOO101: Animal Diversity (T)	4	-		-		OE101: Vermicomposting Management	2		2		2	2	22	
		ZOO102: Lab Activity on ZOO101 (P)	2					OE102: Sericulture Management	2		2	IKS101: General IKS (T)	2			
	II	ZOO103: Comparative Anatomy & Developmental Biology of Vertebrates (T)	4	-		ZOO103: Comparative Anatomy & Developmental Biology of Vertebrates(T)	2	OE103: Poultry Management	2	VSC102: Lab Activity ZOO103 (P)	2		2	2	22	
		ZOO104: Lab Activity ZOO103 (P)	2					OE104: Goat Farming	2	ZOO105: Vermiculture Management (TW)	2		2			
Cum. Cr.		12		00		02		08		08		10		04		44
5.0	III	ZOO201: Animal Physiology & Ecology (T)	4			ZOO201: Animal Physiology & Ecology (T)	4	OE201: Dairy Production & Management	2	VSC201: Lab Activity on ZOO201 (P)	2		2	ZOO204:Field Project (TW)	2	22
		ZOO202: Biology in Ayurveda (IKS) (T)	2													
		ZOO203: Lab Activity on ZOO201 (P)	2													
	IV	ZOO205: Genetics & Evolutionary Biology (T)	4		ZOO205: Genetics & Evolutionary Biology (T)	4	OE202: Intellectual Property Rights (IPR) (TW)	2		2		2	ZOO208: Bee Keeping (TW)	2	22	
		ZOO206: Microbiology (T)	2													2
		ZOO207: Lab Activity on ZOO205(P)	2													2
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	ZOO301: Mammalian Histology (T)	4	ZOO304: Techniques in Medical Forensic Zoology (T) OR ZOO305: Apiculture & Sericulture (T) OR ZOO306: Wildlife Conservation (T)	4	ZOO301: Mammalian Histology(T)	4			VSC301: Lab Activity on ZOO301 (P)	2			ZOO307:FP /ZOO308: Awareness of SDG (TW)	2	22
		ZOO302: Marine Ecology (T)	2													
		ZOO303: Lab Activity on ZOO301(P)	4													
	VI	ZOO309: Pest Management & Parasitology (T)	4	ZOO312: Aquarium & Poultry Management (T) OR ZOO313: Economic Zoology(T) OR ZOO314: Biostatistics & Bioinformatics (T)	4	ZOO309: Pest Management & Parasitology (T)	4							ZOO315: OJT (TW)	4	22
		ZOO310: Welfare and behaviour of Domesticated Animals (T)	2													
		ZOO311: Lab Activity on ZOO309 (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	ZOO401: Biochemistry (T)		4	ZOO406: Development Biology (T) OR ZOO407: Entomology (T)		4	RES405: Research Methodology (T)		4					2	22		
		ZOO402: Cell Biology (T)		2														
		ZOO403: Applied Zoology Part -I (T)		4														
		ZOO404: Lab Activity on Biochemistry, Cell Biology & Applied Zoology Part-I (P)		4														
	VIII	ZOO409: Molecular Biology (T)		4	ZOO415: Animal Biotechnology (T) OR ZOO416: Toxicology (T)		4							ZOO413: OJT (TW)	4	22		
		ZOO410: Genetics (T)		2														
		ZOO411: Applied Zoology Part-II (T)		4														
		ZOO412: Lab Activity on Molecular Biology, Genetics & Applied Zoology Part-II (P)		4														
Cum. Cr.		76			16			22		12		14		14		22		176

Programme Structure: B.Sc. (Honours) (Major in Zoology and Minor in Botany) (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	ZOO101: Animal Diversity (T)	4	-		-		OE101: Vermicomposting Management	2	VSC101: Basic Instrumentation Skills (TW)	2	AEC101: English Communication -I (T)	2	CC101: Photograph y Techniques & Bird Watching (TW)	2	22
		ZOO102: Lab Activity ZOO101(P)	2					OE102: Sericulture Management	2	SEC101: MS-Excel with AI (TW)	2	VEC101: Environmental Education-I (T)	2			
	II	ZOO103: Comparative Anatomy & Developmental Biology of Vertebrates (T)	4	-		BOT103: Plant Ecology & Taxonomy (T)	2	OE103: Poultry Management	2	VSC102: Lab Activity on Plant Ecology & Taxonomy (P)	2	AEC102: English Communication -II (T)	2			
		ZOO104: Lab Activity on ZOO103 (P)	2					OE104: Goat Farming	2	ZOO105: Vermiculture Management (TW)	2	VEC102: Environmental Education-II (T)	2			
Cum. Cr.		12		00		02		08		08		10		04		44
Exit option: Award of UG Certificate in ZOOLOGY as Major with 44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																
5.0	III	ZOO201: Animal Physiology & Ecology (T)	4			BOT301: Diversity & Morphology of Angiosperms (T)	4	OE201: Dairy Production & Management	2	VSC201: Lab Activity on Diversity & morphology of Angiosperms (P)	2	AEC201: Modern Indian Language-I (T)	2	ZOO204:Field Project (TW)	2	22
		ZOO202: Biology In Ayurveda (T)	2											CC201: Applied Arts (TW)	2	
		ZOO203: Lab Activity on ZOO201 (P)	2													
	IV	ZOO205: Genetics & Evolutionary Biology (T)	4			BOT304: Plant Systematic- Algae, Fungi & Bryophytes (T)	4	OE202: Intellectual Property Rights (IPR) (TW)	2	SEC201: Financial & Investment Skills (TW)	2	AEC202: Modern Indian Language – II (T)	2	ZOO208: Bee Keeping (TW)	2	22
		ZOO206: Microbiology (T)	2											CC202: Astronomy for Beginners (TW)	2	
		ZOO207: Lab Activity on ZOO205 (P)	2													
Cum. Cr.		28		00		10		12		12		14		12		88
Exit option: Award of UG Diploma in ZOOLOGY as Major and BOTANY as Minor with 88 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
5-5	V	ZOO301: Mammalian Histology (T)	4	ZOO304: Techniques in Medical Forensic Zoology (T) OR ZOO305: Apiculture & Sericulture (T) OR ZOO306: Wildlife Conservation(T)	4	BOT 206: Cell Biology & Genetics (T)	4			VSC207: Lab Activity on Cell Biology & Genetics(P)	2			ZOO307: Field Project/ ZOO308: Awareness of SDG (TW)	2	22
		ZOO302: Marine Ecology (T)	2													
		ZOO303: Lab Activity on ZOO301 (P)	4													
	VI	ZOO309: Pest Management & Parasitology (T)	4	ZOO312: Aquarium & Poultry Management (T) OR ZOO313: Economic Zoology (T) OR ZOO314: Biostatistics & Bioinformatics (T)	4	BOT 306: Analytical Techniques in Plant Science & Horticulture (T)	4						ZOO315: OJT (TW)	4	22	
		ZOO310: Welfare and behaviour of Domesticated Animals(T)	2													
		ZOO311: Lab Activity on ZOO309 (P)	4													
Cum. Cr.		48		08		18		12		14		14		18		132
Exit option: Award of UG Degree in ZOOLOGY as Major with 132 credits OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
6.0	VII	ZOO401: Biochemistry (T)	4	ZOO406: Development Biology (T) OR ZOO407: Entomology (T)	4	RES405: Research Methodology (T)	4							2	22	
		ZOO402: Cell Biology (T)	2													
		ZOO403: Applied Zoology Part -I (T)	4													
		ZOO404: Lab Activity on Biochemistry, Cell Biology & Applied Zoology Part-I (P)	4													
	VIII	ZOO409: Molecular Biology (T)	4	ZOO415: Animal Biotechnology (T) OR ZOO416: Toxicology (T)	4								ZOO413: OJT (TW)	4	22	
		ZOO410: Genetics (T)	2													
		ZOO411: Applied Zoology Part-II (T)	4													
		ZOO412: Lab Activity on Molecular Biology, Genetics & Applied Zoology Part-II (P)	4													
Cum. Cr.		76		16		22		12		14		14		22		176
Four Year UG Honours Degree in Major and Minor with 176 credits																

Programme Structure: B.Sc. (Honours) (Major in Zoology and Minor in Chemistry) (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	ZOO101: Animal Diversity (T)	4	-		-		OE101: Vermicomposting Management	2	VSC101: Basic Instrumentation Skills (TW)	2	AEC101: English Communication - I(T)	2	CC101: Photography Techniques & Bird Watching (TW)	2	22
		ZOO102: Lab Activity on ZOO101 (P)	2					OE102: Sericulture Management	2	SEC101: MS-Excel with AI (TW)	2	VEC101: Environmental Education-I (T)	2			
	II	ZOO103: Comparative Anatomy & Developmental Biology of Vertebrates (T)	4	-		CHE103: Physical & Organic Chemistry-I (T)	2	OE103: Poultry Management	2	VSC102: Lab Activity on Plant Ecology & Taxonomy (P)	2	AEC102: English Communication -II (T)	2			
		ZOO104: Lab Activity on ZOO103 (P)	2					OE104: Goat Farming	2	ZOO105: Vermiculture Management (TW)	2	VEC102: Environmental Education-II (T)	2			
Cum. Cr.		12		00		02		08		08		10		04		44
Exit option: Award of UG Certificate in ZOOLOGY as Major with 44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																
5.0	III	ZOO201: Animal Physiology & Ecology (T)	4			CHE301: Physical & Organic Chemistry-II (T)	4	OE201: Dairy Production & Management	2	VSC201: Lab Activity on Physical & Organic Chemistry-II (P)	2	AEC201: Modern Indian Language -I (T)	2	ZOO204:Field Project (TW)	2	22
		ZOO202: Biology In Ayurveda (T)	2											CC201: Applied Arts (TW)	2	
		ZOO203: Lab Activity on ZOO201 (P)	2													
	IV	ZOO205: Genetics & Evolutionary Biology (T)	4			CHE304: Analytical Chemistry (T)	4	OE202: Intellectual Property Rights (IPR) (TW)	2	SEC201: Financial & Investment Skills (TW)	2	AEC202: Modern Indian Language - II (T)	2	ZOO208: Bee Keeping (TW)	2	22
		ZOO206: Microbiology (T)	2											CC202: Astronomy for Beginners (TW)	2	
		ZOO207: Lab Activity on ZOO205 (P)	2													
Cum. Cr.		28		00		10		12		12		14		12		88
Exit option: Award of UG Diploma in ZOOLOGY as Major and CHEMISTRY as Minor with 88 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
5-5	V	ZOO301: Mammalian Histology (T)	4	ZOO304: Techniques in Medical Forensic Zoology (T) OR ZOO305: Apiculture & Sericulture (T) OR ZOO306: Wildlife Conservation(T)	4	CHE206: Physical & Inorganic Chemistry (T)	4			VSC207: Lab Activity on Physical & Inorganic Chemistry (P)	2			ZOO307: Field Project /ZOO308: Awareness of SDG (TW)	2	22
		ZOO302: Marine Ecology (T)	2													
		ZOO303: Lab Activity on ZOO301(P)	4													
	VI	ZOO309: Pest Management & Parasitology (T)	4	ZOO312: Aquarium & Poultry Management (T) OR ZOO313: Economic Zoology (T) OR ZOO314: Biostatistics & Bioinformatics(T)	4	CHE306: Green Chemistry (T)	4						ZOO315: OJT (TW)	4	22	
		ZOO310: Welfare and behaviour of Domesticated Animals (T)	2													
		ZOO311: Lab Activity on ZOO309 (P)	4													
Cum. Cr.		48		08		18		12		14		14		18		132
Exit option: Award of UG Degree in ZOOLOGY as Major with 132 credits OR Continue with Major and Minor																

Level	Sem	Major				Minor		OE		VSC, SEC (VSEC)		AEC, VEC, IKS		OJT, FP, CEP, CC, RP		Cum. Cr. / Sem
		Mandatory		Electives												
6.0	VII	ZOO401: Biochemistry (T)	4	ZOO406: Development Biology (T) OR ZOO407: Entomology (T)	4	RES405: Research Methodology (T)	4								2	22
		ZOO402: Cell Biology (T)	2													
		ZOO403: Applied Zoology Part -I (T)	4													
		ZOO404: Lab Activity on Biochemistry, Cell Biology & Applied Zoology Part-I (P)	4													
	VIII	ZOO409: Molecular Biology (T)	4	ZOO415: Animal Biotechnology (T) OR ZOO416: Toxicology (T)	4									ZOO413: OJT (TW)	4	22
		ZOO410: Genetics (T)	2													
		ZOO411: Applied Zoology Part-II (T)	4													
		ZOO412: Lab Activity on Molecular Biology, Genetics & Applied Zoology Part-II (P)	4													
Cum. Cr.		76		16		22		12		14		14		22		176
Four Year UG Honours Degree in Major in ZOOLOGY and Minor in CHEMISTRY with 176 credits																

APPENDIX II:

SYLLABUS OF VXXX: B.Sc. (MAJOR IN ZOOLOGY) {2025 PATTERN}

Refer the syllabus file attached with this mail separate

