



VXXX: M.Sc. (Mathematics with Computer Applications) {2025 Pattern}

Minutes of the PAC Meeting held on 23.04.2024

Date: 23rd April, 2024

Time: 11.30 pm to 04.30 pm

The PAC Meeting for VXXX: M.Sc. (Mathematics with Computer Applications) {2025 Pattern} programme as per NEP 2020 of **School of Sciences** was held offline & online on **Tuesday, 23-04-2024 at 11:30 AM** at school meeting hall. Following members and invitees were present,

01	Dr. Chetana Kamlaskar	(Chairperson) and Member
02	Dr. Sunanda More	Member
03	Prof. S. R. Chaudhari	Member
04	Prof. Bhupendra Singh	Member
05	Prof. Dhananjay Dey	Member
06	Prof. Rajeev Wankar	Member
07	Prof. V. R. Nikam	Member
08	Prof. Y. M. Borse	Member
09	Prof. J. N. Chaudhari	Invitee
10	Ms. Tejaswi Kadam	Academic Coordinator (Mathematics Programme) and Invitee
11	Dr. Bharat More	Invitee
12	Dr. Jagruti Chavan	Invitee
13	Mr. Nandkishor Sangale	Invitee
14	Ms. Minakshi Kadel	Invitee
15	Dr. Dnyaneshwar Bhusanur	Invitee
16	Mr. Ravindra Bharsat	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.

S N	Details of Items	Resolution								
1	Agenda 1: To finalize the suitable name of the programme considering second year courses of proposed M. Sc. programme (Instead of M.Sc. (Applied Mathematics))	The PAC members unanimously finalized the name of the programme, considering the second-year courses of the proposed M.Sc. programme as ‘M.Sc. (Mathematics with Computer Applications)’ (instead of M.Sc. (Applied Mathematics)).								
2	Agenda 2: To confirm and approve proposed programme structure, credit distribution details, evaluation pattern and other details for all courses of M.Sc. (Applied Mathematics) {2025 Pattern} as per NEP2020 guidelines.	The PAC members unanimously finalised and approved the proposed programme structure, credit distribution details, evaluation pattern and other details for all courses of ‘M.Sc. (Mathematics with Computer Applications) {2025 Pattern}’ as per NEP2020 guidelines, with few suggestions about courses in programme structure. Suggestions by PAC members: 1. For the First year (Semester 01 and 02) of proposed M.Sc. programme, PAC members suggested the following changes to align with first-year courses of existing V151: MSc (Mathematics) programme: • Related to shifting of Semester 01 and 02 courses- <table><tr><th>Course name</th><th>Shift to Semester</th></tr><tr><td>Programming in Python</td><td>1</td></tr><tr><td>Number Theory</td><td>1</td></tr><tr><td>Numerical Analysis</td><td>2</td></tr></table> • It has been advised to replace the ‘Field Theory’ course with ‘Field and Coding Theory’ to explore the latest developments, approaches, and applications. 2. The selection of second-year (Semester 03 and 04), Major and Elective courses in the programme structure has been finalized with very serious discussion and fruitful deliberations among all PAC members.	Course name	Shift to Semester	Programming in Python	1	Number Theory	1	Numerical Analysis	2
Course name	Shift to Semester									
Programming in Python	1									
Number Theory	1									
Numerical Analysis	2									
	Action Taken: Programme structure and credit distribution have been modified accordingly. Refer Appendix I for modified programme structure and credit distribution.									
3	Agenda 3: To finalize and approve the syllabus of each course at semesters 01 to 04 of the proposed programme	The PAC members unanimously finalized and approved the syllabus of the proposed courses, which were retained after the finalization of the programme structure. They also agreed to finalize the syllabus of the								

		newly suggested courses in due course of time.
	Action Taken: Syllabus has been updated as per the modified programme structure. Refer Appendix II for updated syllabus.	
4	Agenda 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 VXXX: M.Sc. (Mathematics with Computer Applications) programme. For a few courses, 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.
5	Timely subjects if any: To discuss about the guidelines proposed by the School of Sciences for the Field Project and On Job Training	The PAC members had a fruitful discussion on the guidelines for the Field Project (FP) and On-Job Training (OJT). They unanimously approved the Field Project (FP) and OJT Booklet proposed by the School of Sciences and suggested using the same for all PG Programmes as per the NEP 2020. It was also resolved to authorize the Director of this School to enrich and update the OJT, Field Project (FP), and Research Project (RP) guidelines from time to time as per the University Policy decisions/norms.

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

Thanks...



(Dr. Chetana Kamlaskar)

Chairperson, PAC M.Sc. (Mathematics) and
M.Sc. (Mathematics with Computer Applications)

APPENDIX I: PROGRAMME STRUCTURE OF VXXX: M.Sc. (MATHEMATICS WITH COMPUTER APPLICATIONS) {2025 PATTERN}

Year (2 Yr. PG)	Level / Sem.	Major				RM	OJT/ FP	RP	Cum. Cr.
		Mandatory (DSC)	Cr	Elective (DSE)	Cr				
I	6.0/ Sem I	MAT501: Real Analysis (T)	4	MAT506: Operations Research (T) OR MAT515:- Number Theory (T) OR MATXXX: Introduction to Probability and Statistics (T)	4	RES505: Research Methodology (T) (4 Cr)	-	-	22
		MAT502: Abstract Algebra(T)	4						
		MAT503: Ordinary Differential Equations (T)	2						
		MATXXX: Programming in Python (P)	4						
	6.0/ Sem II	MAT509: Topology (T)	4	MAT507: Numerical Analysis (T) OR MATXXX: Field and Coding Theory (T) OR MATXXX: Statistical Inference (T)	4		MAT513: OJT (4 Cr) OR MAT514: FP (4 Cr)	-	22
		MAT510: Linear Algebra (T)	4						
		MAT511: Partial Differential Equations (T)	2						
		MAT512: LaTeX and Programming in SageMath (P)	4						
Cum. Cr. For1 Years PG Diploma		28		8		4	4	-	44
Exit option: PG Diploma (44 Credits) after Three Year UG Degree (PGD-9-MAT: Post Graduate Diploma in Mathematics)									
II	6.5/ Sem III	MAT601: Complex Analysis (T)	4	MATXXX: Design and Analysis of Algorithm (T) OR MATXXX: Foundation of Quantum Computing (T) OR MATXXX: Time Series Analysis (T)	4		-	MAT605: Research Project (4 Cr)	22
		MATXXX: Machine Learning (ML) (T)	4						
		MATXXX: Introduction to Artificial Intelligence (AI) (T)	2						
		MATXXX: Practical on AI & ML (P)	4						
	6.5/ Sem IV	MAT606: Discrete Mathematics (T)	4	MAT613: Cryptography (T) OR MATXXX: Quantum Computing Algorithm (T) OR MATXXX: Theory of Computations (T)	4	-		MAT612: Research Project (6 Cr)	22
		MATXXX: Introduction to Data Science (T)	4						
		MATXXX: SQL for Data Science (P)	4						
Cum. Cr. For 2 Years PG Degree		54		16		4	4	10	88
2 Years-4 Sem. PG Degree (88 credits) after Three Year UG Degree									

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

APPENDIX II:

SYLLABUS OF VXXX: M.Sc. (MATHEMATICS WITH COMPUTER APPLICATIONS) {2025 PATTERN}

Refer the syllabus file attached with this mail separately.

