Anekant Education Society's

Tuljaram Chaturchand College
of Arts, Science and Commerce, Baramati

(Autonomous)

DEPARTMENT OF MATHEMATICS

(Faculty of Science and Technology)

Minutes of Board of Studies Meeting No.7A

Date of Meeting: 10/06/2023

Venue: Department of Mathematics

June, 2023

Anekant Education Society's

Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati

(Autonomous)

Department of Mathematics

AGENDA OF THE MEETING

The agenda of the meeting included the following subjects:

1. To confirm the minutes of the previous meeting held on 10th April 2023.

2. To prepare and approve the structure for the First Year UG & PG (Sem-I & II) in accordance with the NEP 2020.

3. To prepare and approve curriculum of the First Year UG & PG (Sem-I) in accordance with the NEP 2020.

4. To introduce at least 3 CERTIFICATE courses from MOOCs, SWAYAM, etc. on online portals for the second and third year, following the 2022 pattern.

5. Any other issue with the permission of the chair.

<u>List of Members Present for the BOS Meeting</u>

The following internal and external BOS members attended the Board of Studies (Mathematics) meeting through online mode held on 10th April, 2023.

Sr. No.	Name of Member	Designation
1.	**Mr. Sadashiv R. Puranik,**	Chairman
2.	**Ms. Varsha H. Shinde**	Member
3.	**Dr. Prakash B. Fulari**	Member
4.	**Ms. Shaila S. Jadhav**	Member
5.	**Ms. Nikita R. Shinde**	Member
6.	**Ms. Sonali V. Kate**	Member
7.	**Dr. Anil S. Khairnar**	Vice-Chancellor Nominee
8.	**Dr. Nitin S. Darkunde**	Expert from other University
9.	**Dr. Kishor D. Kucche**	Expert from other University
10.	**Mr. Amit Patil**	Industry Expert
11.	**Ms. Sharwari Markale**	PG Student
12.	**Mr. Vinay Zende**	UG Student

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<u>MINUTES OF THE MEETING</u>

As per the notice issued by the college, the meeting of Board of Studies in Mathematics was successfully held on 10th June, 2023 at 11:30 AM in the Department of Mathematics, T. C. College, Baramati. The meeting took place in hybrid mode (online and offline both), adhering to the guidelines and protocols set by the college under the guidance of Mr. Sadashiv R. Puranik, Chairman, Board of Studies in Mathematics. The meeting commenced with a warm welcome to all the esteemed members, followed by a brief introduction of the meeting's objectives.

During the meeting, fruitful discussions were held on the items mentioned in the circulated agenda. We are pleased to inform you that the following resolutions were made during the BoS meeting.

1. **Confirmation of Minutes from Previous Meeting (10th April 2023):**

   - The meeting commenced with a review of the minutes from the previous meeting held on 10th April 2023. After careful consideration, the minutes were confirmed by the attendees.

2. **Preparation and Approval of the structure for the First Year UG & PG (Sem – I & II) in accordance with the NEP 2020:**

   - Course and Credit structure for First Year UG & PG (Sem – I & II) are as follow:

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Credit Distribution Structure for F.Y.B.Sc.-2023-2024 (Mathematics)

Level	Semester	Major		Minor	OE	VSC, SEC, (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cum. Cr/Sem	Degree/ Cum.Cr.
		Mandatory	Electives							
4.5	I	MAT-101-MJM: Algebra (2 Credits) MAT-102-MJM: Calculus (2 Credits) MAT-103-MJM: Mathematics Practical I (2 Credits)			MAT-116-OE: Basic Mathematics I (2 Credits) MAT-117-OE: Applied Mathematics I (2 Credits)	MAT-121-VSC: Logical Methods (2 Credits) MAT-126-SEC: Scilab and Maxima Software- I (2 Credits)	ENG-131-AEC : Functional English-I (2 Credits) MAT-135-VEC: Mathematics for Environmental Science (2 Credits) MAT-137-IKS: Vedic Mathematics (2 credits)	CC1 (2 credit)	22	UG Certificate 44 credits
	II	MAT-151-MJM: Geometry (2 Credits) MAT-152-MJM: Calculus and Differential Equations (2 Credits) MAT-153-MJM: Mathematics Practical II (2 Credits)		MAT-161-MJM: Fundamentals of Mathematics (2 Credits)	MAT-166-OE: Basic Mathematics II (2 Credits) MAT-167-OE: Applied Mathematics II (2 Credits)	MAT-171-VSC: Geogebra Software (2 Credits) MAT-176-SEC: Scilab and Maxima Software- II (2 Credits)	ENG-181-AEC: Functional English-II (2 Credits) MAT-185-VEC: Mathematical Solutions for Environmental Challenges (2 Credits)	CC2 (2 credit)	22	
	Cum Cr.	12	--	2	8	8	10	4	44	

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Credit Distribution Structure for (M.Sc. Mathematics) Part-I (2023 Pattern)

Year	Level	Sem.	Major		Research Methodology (RM)	OJT/ FP	RP	Cum. Cr.
			Mandatory	**Electives**				
I	6.0	Sem-I	MAT-501-MJM: Measure Theory and Integration (**Credit 04**) MAT-502-MJM: Advanced Calculus (**Credit 04**) MAT-503-MJM: Practical in Ordinary Differential Equations (**Credit 02**) MAT-504-MJM: Programming in C (**Credit 02**)	MAT-511-MJE (A): Numerical Analysis (**Credit 04**) **OR** MAT-511-MJE (B): Group Theory (**Credit 04**)	MAT-521-RM: Research Methodology in Mathematics (**Credit 04**)	--	--	20
		Sem- II	MAT-551-MJM: Complex Analysis (**Credit 04**) MAT-552-MJM: Topology (**Credit 04**) MAT-553-MJM: Practical in Partial Differential Equations (**Credit 02**) MAT-554-MJM: Programming in C++ (**Credit 02**)	MAT-561-MJE(A): Linear Algebra (**Credit 04**) **OR** MAT-561-MJE(B): Rings and Modules (**Credit 04**)	--	MAT-581-OJT/FP **Credit 04**	--	20
	Cum. Cr.		**24**	**8**	**4**	**4**	**--**	**40**

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3. **Preparation and Approval of Curriculum for the First Year UG & PG (Sem – I & II) in accordance with the NEP 2020:**

- Following is the list of courses approved by BoS for First Year UG.

Sem	Course Type	Course Code	Course Name	Theory / Practical	Credits
I	Major Mandatory	MAT-101-MJM	Algebra	Theory	02
	Major Mandatory	MAT-102-MJM	Calculus	Theory	02
	Major Mandatory	MAT-103-MJM	Mathematics Practical I	Practical	02
	Open Elective (OE)	MAT-116-OE	Basic Mathematics I	Theory	02
	Open Elective (OE)	MAT-117-OE	Applied Mathematics I	Practical	02
	Vocational Skill Course (VSC)	MAT-121-VSC	Logical Methods	Theory	02
	Skill Enhancement Course (SEC)	MAT-126-SEC	Scilab and Maxima Software I	Practical	02
	Ability Enhancement Course (AEC)	ENG-131-AEC	Functional English-I	Theory	02
	Value Education Course (VEC)	MAT-135-VEC	Mathematics for Environmental Science	Theory	02
	Indian Knowledge System (IKS)	MAT-137-IKS	Vedic Mathematics	Theory	02
	Co-curricular Course (CC)	--	To be selected from the Basket	Theory	02
	Total Credits Semester-I				**22**
II	Major Mandatory	MAT-151-MJM	Geometry	Theory	02
	Major Mandatory	MAT-152-MJM	Calculus and Differential Equations	Theory	02
	Major Mandatory	MAT-153-MJM	Mathematics Practical II	Practical	02
	Minor	MAT-161-MN	Fundamentals of Mathematics	Theory	02
	Open Elective (OE)	MAT-166-OE	Basic Mathematics II	Theory	02
	Open Elective (OE)	MAT-167-OE	Applied Mathematics II	Practical	02
	Vocational Skill Course (VSC)	MAT-171-VSC	Geogebra Software	Practical	02
	Skill Enhancement Course (SEC)	MAT-176-SEC	Scilab and Maxima Software II	Practical	02
	Ability Enhancement Course (AEC)	ENG-181-AEC	Functional English-II	Theory	02
	Value Education Course (VEC)	MAT-185-VEC	Mathematical Solutions for Environmental Challanges	Theory	02
	Co-curricular Course (CC)	--	To be selected from the Basket	Theory	02
	Total Credits Semester-II				**22**
	Cumulative Credits Semester I + Semester II				**44**

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- Following is the list of courses approved by BoS for First Year PG.

Sem	Course Type	Course Code	Course Title	Theory/ Practical	No. of Credits
I	Major (Mandatory)	MAT-501-MJM	Measure Theory and Integration	Theory	04
	Major (Mandatory)	MAT-502-MJM	Advanced Calculus	Theory	04
	Major (Mandatory)	MAT-503-MJM	Practical in Ordinary Differential Equations	Practical	02
	Major (Mandatory)	MAT-504-MJM	Programming in C	Practical	02
	Major (Elective)	MAT-511-MJE (A)	Numerical Analysis	Theory	04
		MAT-511-MJE (B)	Group Theory	Theory	
	Research Methodology (RM)	MAT-521-RM	Research Methodology	Theory	04
			Total Credits Semester I		**20**
II	Major (Mandatory)	MAT-551-MJM	Complex Analysis	Theory	04
	Major (Mandatory)	MAT-552-MJM	Topology	Theory	04
	Major (Mandatory)	MAT-553-MJM	Practical in Partial Differential Equations	Practical	02
	Major (Mandatory)	MAT-554-MJM	Programming in C++	Practical	02
	Major (Elective)	MAT-561-MJE(A)	Linear Algebra	Theory	04
		MAT-561-MJE(B)	Rings and Modules	Theory	
	On Job Training (OJT)/Field Project (FP)	MAT-581-OJT/FP	On Job Training Filed Project	Training/ Project	04
			Total Credits Semester-II		**20**
			Cumulative Credits Semester I and II		**40**

4. **Introduction of at least 3 CERTIFICATE courses from MOOCs, SWAYAM, etc. on online portals for the second and third year, following the 2022 pattern:**
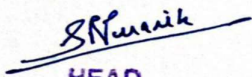
- The members of the Board of Studies provided suggestions for different courses available on online platforms such as MOOC and SWAYAM.
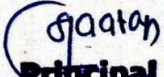
5. **Any other:**

- Stakeholders feedback is considered while designing the syllabus and committee discussed and approved with some minor changes.

Following courses are designed by Board of Studies in this meeting.

Class	Pattern	Semester	Course Code	Course Title	Course Type	No. of Credits
F.Y.B.Sc	2023	I	MAT-101-MJM	Algebra	Major Mandatory	02
F.Y.B.Sc	2023	I	MAT-102-MJM	Calculus	Major Mandatory	02
F.Y.B.Sc	2023	I	MAT-103-MJM	Mathematics Practical I	Major Mandatory	02
F.Y.B.Sc	2023	I	MAT-116-OE	Basic Mathematics I	Open Elective	02
F.Y.B.Sc	2023	I	MAT-117-OE	Applied Mathematics I	Open Elective	02
F.Y.B.Sc	2023	I	MAT-121-VSC	Logical Methods	VSC	02
F.Y.B.Sc	2023	I	MAT-126-SEC	Scilab and Maxima Software I	SEC	02
F.Y.B.Sc	2023	I	MAT-137-IKS	Vedic Mathematics	IKS	02
F.Y.B.Sc (Comp)	2023	I	COS-126-SEC	Mathematics for Computer Science	SEC	02
M.Sc.	2023	I	MAT-501-MJM	Measure Theory and Integration	Major Mandatory	04
M.Sc.	2023	I	MAT-502-MJM	Advanced Calculus	Major Mandatory	04
M.Sc.	2023	I	MAT-503-MJM	Practical in Ordinary Differential Equations	Major Mandatory	02
M.Sc.	2023	I	MAT-504-MJM	Programming in C	Major Mandatory	02
M.Sc.	2023	I	MAT-511-MJE (A)	Numerical Analysis	Major Elective	04
M.Sc.	2023	I	MAT-511-MJE (B)	Group Theory	Major Elective	
M.Sc.	2023	I	MAT-521-RM	Research Methodology	RM	04

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