Department of Mathematics

Board of Studies Meeting

The minutes of the 19th meeting of Board of Studies held on 28.06.2025 at 10.00 a.m. at the C Block, Seminar Hall III.

Members Present:

S.No.	Name	Category
1.	**Dr. R. Sowrirajan** Head, Department of Mathematics Dr. N.G.P. Arts and Science College, Coimbatore	Chairman
2.	**Dr. N. Nithyadevi** Assistant Professor Department of Applied Mathematics Bharathiar University Coimbatore	VC Nominee
3.	**Dr. V. Kavitha** Assistant Professor Department of Mathematics Karunya Deemed-to-be-University Coimbatore	Subject expert
4.	**Dr. A. Vinodkumar** Associate Professor Department of Mathematics Amrita Vishwa Vidyapeetham Coimbatore	Subject expert
5.	**Dr. B. Somasundaram** Director of Center of Excellence (CoE) and Chief Digital Officer (CDO) NETIX.AI Coimbatore	Industry expert
6.	Dr. P. Umadevi	Internal Member
7.	Mr. M. Santhosh Kumar	Internal Member
8.	Dr. S. Gokilamani	Internal Member
9.	Dr. S. Manimekalai,	Internal Member
10.	Dr. S. Kannaki	Internal Member
11.	Ms. R. Anandhi	Internal Member

12.	Mr. S. Rameshkumar	Internal Member
13.	Mr. C. Sivakumar	Internal Member
14.	Ms. A. Thamilpriya	Internal Member
15.	Dr. S. Mathankumar	Internal Member
16.	Mr. D. Sundar	Internal Member
17.	Ms. M. Vinitha	Internal Member
18.	Dr. R. Sindhu	Internal Member
19.	Dr. S.V. Arokia Pratheesha	Internal Member
20.	Mr. A. Sethupathi	Internal Member
21.	**Dr. N. Kuppuchamy** Dept of Tamil, Dr. N. G. P. Arts and Science College Coimbatore	Co-opted Member
22.	**Dr. A. Hazel Verbina** Dept of English Dr. N. G. P. Arts and Science College Coimbatore	Co-opted Member
23	**Dr. V. Pream Sudha** Dept of CS with Data Analytics, Dr. N. G. P. Arts and Science College Coimbatore	Co-opted Member
24	**Dr. T. Snekalatha** Dept of Commerce (A & T) Dr. N. G. P. Arts and Science College Coimbatore	Co-opted Member
25	**Ms. S. K. Preethika** II M.Sc. Mathematics	Student representative
26	**Ms. K. Dhivya Bharathi** II B.Sc. Mathematics	Student representative

The Chairman and HoD of the Department of Mathematics welcomed and introduced all the members and requested for their support and contribution for the development of academic standard and enrichment of the syllabus.

Further Chairman informed the inability of the following members to attend the meeting and requested to grant leave of absence.

1. Mr. N. Navinkumar, Meritorious Alumni

After brief discussion the items of the agenda were taken one by one for discussion and the following resolutions were passed.

Item 19.1: *To review and approve the minutes of the 18th BoS meeting held on 07.11.2024*

The chairman of the Board presented the minutes of the previous meeting held on **07.11.2024** and requested the members to approve. After brief discussion the following resolution was passed

Resolution:

Resolved to approve the 18th minutes of the previous meeting held on 07.11.2024

Item 19.2: *To consider and approve the scheme and syllabi of I semester for the PG students admitted during the academic year 2025-26.*

The Chairman presented the detailed Scheme and Syllabi of I semester for the PG students admitted during the academic year 2025-26. The members deliberated in detail about the Scheme and Syllabus of each course, after discussion it is unanimously decided to adopt the same scheme and syllabus without any modifications.

IDC Offered:

Course Code	Course	Department
25MTU1ID	Mathematics for Computing I	B.Sc. (CSDA/AI&ML)
25MTU1IA	Business Mathematics	B.Com.(CA/IT/BA/BPS)
25MTU1IB	Mathematics for Management I	BBA(CA)
25MTU1IC	Numerical Methods and Statistics	B.Sc. (CS/IT/CT/ BCA/Cognitive)
25MTU1IM	Fundamentals of Mathematics with MATLAB	B.Sc. Physics
25MTP1EA	Mathematical Foundations in Data Science	M. Sc. CSDA

New Course Introduced:

Course Code	Course	Offered to
25MTU1IE	Business Mathematics and Statistics	B.Com. PA

After discussion the following resolution was passed without any changes and modifications.

Resolution:

Resolved to approve the I semester syllabus and scheme for the PG students admitted during the academic year 2025-26.

Item 19.3: *To consider and approve the changes, if any, in the syllabi of III semester for the UG and PG Students admitted during the academic year 2024-25.*

The Chairman presented the detailed Syllabi of III semester for the students admitted during the academic year 2024-25. The members deliberated in detail about the syllabi. After discussion it is unanimously decided to adopt the same syllabus without any changes.

Self Study Offered:

UG:

Course Code	Course
24MTUSSA	History of Mathematics
24MTUSSB	Introduction to Vedic Mathematics

PG:

Course Code	Course
24MTPSSA	Research Methodology, IPR and Entrepreneurship
24MTPSSB	Mathematics of Bioinformatics

IDC Offered:

Course Code	Course	Department
24MTU3IA	Business Mathematics	B.Com./II B.Com.(IB/ B&I/ AT/ Fin/ CSCA)
24MTU3IE	Basic Mathematics	B.Sc. Biotechnology
24MTU3IF	Principles of Biostatistics	B.Sc. Microbiology/ Biochemistry
24MTU3IC	Operations Research	B.Sc. Cognitive
24MTU3ID	Discrete Mathematics	B.Sc. (CSDA/AI&ML)
24MTU3IM	Mathematics with MATLAB	B.Sc. Chemistry

After discussion the following resolution was passed without any changes and modifications.

Resolution:

Resolved to approve the III semester syllabus for the students admitted in UG and PG for the academic year 2024-2025.

Item 19.4: *To consider and approve the syllabi of V semester for the students admitted during the academic year 2023-24.*

The chairman presented the detailed syllabus of V semester for the students admitted during the academic year 2023-24. The members deliberated in detail about the modification required. After discussion it is unanimously decided to adopt the following changes.

Changes Made:

Course Code	Course	Changes and Reason
232MT1A5CC	**Number Theory**	• Unit I: Dr. Nithyadevi suggested to include a topic of Ancient Indian Mathematics Practices. • Unit I: Dr. Vinodkumar also suggested to add binary mathematics and combinatorial problems in Number Theory. To enrich the knowledge of IKS in Number Theory.

Generic Elective Offered:

Course Code	Course
232MT1A5GA	Vedic Mathematics

After discussion the following resolution was passed with the above changes and modifications.

Resolution:

> **Resolved to approve the V semester syllabus for the students admitted during the academic year 2023-24.**

Item 19.5: *To consider and approve the courses offered by NPTEL that are equivalent to the courses offered in our curriculum.*

The board discussed the courses offered by NPTEL that are equivalent to the course offered in our curriculum.

Resolution:

> **Resolved to examine and approve the NPTEL courses that are equivalent to the courses in our curriculum.**

Item 19.6: *To approve the panel of examiners for question paper setting and evaluation of answer scripts for the odd semester during the academic year 2025-26.*

The Chairman presented the panel of examiners for question paper setting, question paper scrutiny and conduct of practical and theory examination are to be submitted to CoE for exam related work.

Resolution:

> **Resolved to approve the panel of examiners for question paper setting and evaluation of answer scripts for the odd semester during the academic year 2025-26.**

Item 19.7: *To approve the Student Skill Development Course (SSDC) during the academic year 2025-26*

Board member Mr. Somasundaram suggested to give Data Science and Big data course for *Student Skill Development Course.*

Resolution:

> **Resolved to approve the Student Skill Development Course (SSDC) during the academic year 2025-26.**

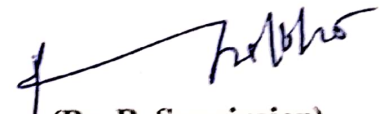**Item 19.8:** *To consider and approve any other item brought forward by the Chairman and the members of the board.*

One of the board member Mr. Somasundaram suggested to give internship at least three months for better understanding of the field.

Resolution:

Resolved to consider the suggestions provided by the Board members and to implement the same in the academic year 2025-26.

Finally, the Chairman thanked all the members for their cooperation and contribution in enriching the syllabus with active participation in the meeting. The meeting was closed with formal vote of thanks proposed by the chairman.

Date: 28/06/2025

(Dr. R. Sowrirajan)

BoS Chairman/HoD
Department of Mathematics
Dr. N. G. P. Arts and Science College
Coimbatore – 641 048

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Department of Mathematics
Syllabus Revision

Syllabus Revision

Faculty: BAS   **Board:** Mathematics   **Semester: V**

Course Code/ Name: 232MT1A5CC /Number Theory

Unit	Existing	Changes
I	**Preliminaries and Divisibility Theory in the Integers:** Mathematical induction - Binomial theorem - division algorithm - greatest common divisor - Euclidean Algorithm - Diophantine equation ax+by=c.	**Number Theory and Indian Mathematics:** Ancient Indians: Tryst with Mathematics - unique aspects of Indian mathematics – great mathematicians and their contribution – arithmetic – geometry – trigonometry – algebra - binary mathematics and combinatorial problems in Chandah-Sastra of Pingala (300 BCE) - magic squares in India.
II	**Primes and theory of Congruences:** Fundamental theorem of arithmetic - Sieve of Eratosthenes - Goldbach conjecture - basic properties of congruence - binary and decimal representations of integers - linear congruences and the Chinese remainder theorem.	
III	**Fermat's Theorem and Number-Theoretic Functions:** Pierre de Fermat - Fermat's little theorem and pseudoprimes – Wilson's theorem - sum and number of divisors - Mobius inversion formula - greatest integer function.	
IV	**Euler's Generalization, Primitive Roots and Indices:** ~~Euler's Phi function - Euler's theorem - order of an integer modulo n-Primitive roots for primes - Euler's criterion - Legendre symbol and its properties.~~	
V	~~**Cryptography:** From Caesar Cipher to public key cryptography - Knapsack cryptosystem - application of primitive roots to cryptography.~~	

PERCENTAGE OF SYLLABUS REVISED: 20%

COURSE FOCUSES ON:

✓	Skill Development	☐	Entrepreneurial Development
✓	Employability	☐	Innovations
☐	Intellectual Property Rights	☐	Gender Sensitization
☐	Social Awareness/ Environment	☐	Constitutional Rights/ Human Values/ Ethics

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Syllabus (New Course)

Faculty: BAS   Board: Mathematics   Semester: I

Course Code/ Name: **25MTU1IE / IDC: BUSINESS MATHEMATICS AND STATISTICS**

Unit	Content
I	**Theory of sets and its business applications** Theory of sets and its business applications - Set theory - representation of sets – union, intersection and complement – subset – null set – difference of a set - De Morgan's law- universal set - basic operations - Cartesian products - laws of set algebra - cardinal numbers - Venn diagram - business applications.
II	**Ratio, Permutation and Combination** Ratio, Permutation & Combination - Ratio – proportion - types – ratio, proportion and its type of comparison - variations – percentage - annexing zeros and removing decimal signs - average - computation of mean for grouped series - mean of composite group. Fundamental counting principle – factorial – permutation - restricted permutation - circular permutations - combination - restricted combinations - division into groups – mixed problems on permutation and combination.
III	**Sequence and Series - Its application to business** Sequence and Series - Its application to business - General idea and different types of sequences - kinds of sequence - arithmetic and geometric means - arithmetic progression- geometric progression - harmonic progression.
IV	**Graphic and Diagrammatic Presentation of Data** Introduction – importance of Graphic and Diagrammatic presentation – limitations – guidelines in presenting data –type of Graph or Diagram to be used – Graphic Devices – One-dimensional and Two-dimensional diagrams – Circular or Pie diagrams – three-dimensional diagrams – Pictograms – Cartograms – choice of a Suitable Diagram.
V	**Probability Distribution** Introduction – Random variables –Binomial Distribution – necessary condition – mean and standard deviation –Poisson distribution –Poisson probability table - Poisson Distribution as an approximation of Binomial Distribution –normal distribution – characteristics – standard normal probability table – approximation to Binomial Distribution.

PERCENTAGE OF SYLLABUS REVISED: 100%

COURSE FOCUSES ON

- [✓] Skill Development
- [ ] Entrepreneurial Development
- [✓] Employability
- [ ] Innovations
- [ ] Intellectual Property Rights
- [ ] Gender Sensitization
- [ ] Social Awareness/ Environment
- [ ] Constitutional Rights/ Human Values/ Ethics

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ATTENDANCE OF THE NINETEENTH BOARD OF STUDIES MEETING

Faculty: Basic and Applied Sciences

Board: Mathematics

Date   :   28/06/2025
Time   :   10.00 a.m.
Venue   :   Seminar Hall III

S.No	Name and address	Designation	Signature
1	**Dr. R. Sowrirajan** Head, Department of Mathematics Dr. N.G.P. Arts and Science College, Coimbatore	Chairman	
2	**Dr. N. Nithyadevi** Assistant Professor Department of Applied Mathematics Bharathiar University Coimbatore	VC Nominee	
3	**Dr. V. Kavitha** Assistant Professor Department of Mathematics Karunya Deemed-to-be-University Coimbatore	Subject expert	28/56/2025
4	**Dr. A. Vinodkumar** Associate Professor Department of Mathematics Amrita Vishwa Vidyapeetham Coimbatore	Subject expert	
5	**Dr. B. Somasundaram** Director of Center of Excellence (CoE) and Chief Digital Officer (CDO) NETIX.AI Coimbatore	Industry expert	
6	**Mr. N. Navinkumar** Systems Engineer Infosys Limited Bengaluru	Meritorious Alumni	ABSENT
7	**Dr. P. Umadevi** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	

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19th

8	**Mr. M. Santhosh Kumar,** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
9	**Dr. S. Gokilamani** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
10	**Dr. S. Manimekalai,** Dept of Mathematics, Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
11	**Dr. S. Kannaki** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
12	**Ms. R. Anandhi** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
13	**Mr. S. Rameshkumar** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
14	**Mr. C. Sivakumar** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
15	**Ms. A. Thamilpriya** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
16	**Dr. S. Mathankumar** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
17	**Mr. D. Sundar** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
18	**Ms. M. Vinitha** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	
19	**Dr. R. Sindhu** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	

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20	**Dr. S.V. Arokia Pratheesha** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	*S.V.Arokia*
21	**Mr. A. Sethupathi** Dept of Mathematics Dr. N. G. P. Arts and Science College Coimbatore	Internal Member	*A. Sethupathi*
22	**Dr. N. Kuppuchamy** Dept of Tamil, Dr. N. G. P. Arts and Science College Coimbatore	Co-opted Member	*28/06/25*
23	**Dr. A. Hazel Verbina** Dept of English Dr. N. G. P. Arts and Science College Coimbatore	Co-opted Member	*28/06/25*
24	**Dr. V. Pream Sudha** Dept of CS with Data Analytics, Dr. N. G. P. Arts and Science College Coimbatore	Co-opted Member	*28/6/25*
25	**Dr. T. Snekalatha** Dept of Commerce (A & T) Dr. N. G. P. Arts and Science College Coimbatore	Co-opted Member	*P.Sn*
26	**Ms. S. K. Preethika** II M.Sc. Mathematics	Student representative	*S.K.Preethika*
27	**Ms. K. Dhivya Bharathi** II B.Sc. Mathematics	Student representative	*K.Dhivya*

Date: 28/06/2025

(Dr. R. Sowrirajan)

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