



**GIET UNIVERSITY, GUNUPUR -76502**  
**SCHOOL OF SCIENCES**

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Date:09.05.2024

**Circular**

This is to inform all the Members, Board of Studies of Mathematics Department that the Board of Studies Chairman has accepted to held a BoS meeting on 15<sup>th</sup> May, 2024 at 10.00 AM. The meeting will be conducted in the Conference Hall of the Department to discuss on the following agenda points.

1. Review and revision of syllabus.
2. Implementation of five units in every subject.
3. Implementation of outcome based education.
4. Implementation of 60 marks for external and 40 marks for internal evaluation.
5. Induction of one NPTEL course

In this regard I request you all the Board of Studies Members to kindly make themselves available for the smooth conduct of the meeting.

**Copy to:**

- 1.Vice-Chancellor
- 2.Registrar
- 3.Controller of Examination
- 4.Dean School of Sciences

*Raw*  
**HoD** 91524

**School of Sciences**

**GIET UNIVERSITY, GUNUPUR**  
**SCHOOL OF SCIENCES**  
**DEPARTMENT OF MATHEMATICS**

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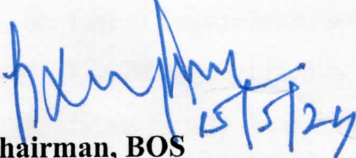
**NOTIFICATION**

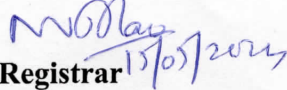
**Date- 15.05.2024**

This is to notify that the Board of Studies of **M. Sc MATHEMATICS** in the Department of School of Sciences to be held on 15.05.2024 with following agenda.

**AGENDA**

1. Details of Syllabus & Structure- AR 24
2. List of Examiners
3. Any others

  
Chairman, BOS  
Department of Mathematics

  
Registrar  
GIET University, Gunupur

*Copy to: Chairman BoG, Vice Chancellor, Dean (Academics), Dean/HoD (School of Sciences), for information.*

BoS Approved

Date:15.05.2024

To  
Prof. Vasudeva Rao Allu  
Professor, Department of Mathematics.  
IIT, BBSR  
Sir,

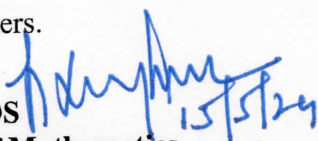
This is with reference to our telephonic conversation with regard to BOS meeting for the Department of school of Sciences in the subject **M. Sc (MATHEMATICS) (2024-2026)**. We would like to convene a meeting on Dt. **15.05.2024**.

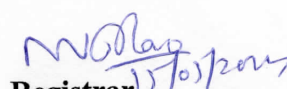
Kindly acknowledge in this regard and revert back so as to make necessary travel arrangement.

### AGENDA

1. Ratification of Previous meeting
2. Details syllabus and course structure-24
3. Internal Examination and end Sem Result analysis
4. Different Academic activities
5. Research and development
6. List of Examiners/Question setter
7. List of Adjunct faculty
8. Guest faculty for conducting value added topics
9. Any others.

Chairman, BOS  
Department of Mathematics

  
15/5/24

  
Registrar  
GIET University, Gunupur

*Copy to: Chairman BoG, Vice Chancellor, Dean (Academics), Dean/HoD (School of Sciences), for information.*

BoS Approved

Date: 15.05.2024

**GIET UNIVERSITY, GUNUPUR**  
**SCHOOL OF SCIENCES**  
**DEPARTMENT OF MATHEMATICS**

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**NOTICE**

The following BoS members of **MATHEMATICS** are requested to attend the BOS meeting of **M.Sc. (MATHEMATICS)** on Dt. **15.05.2024**.

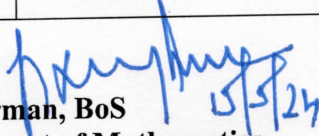
1. Dr. P. Vijay Kumar
2. Prof. (Dr.) Vasudeva Rao Allu
3. Dr. Biplab Kumar Rath
4. Dr. V. Ganesh
5. Dr. Manas Ranjan Sarangi
6. Dr. Dipana Jyoti Mohanty
7. Dr. Boina Anil Kumar
8. Dr. Madhusudan Patro
9. Dr. Tapas Ranjan Panigrahi
10. Dr. Laxmipriya Parida
11. Mr. N Jagannadham
12. Mr. Sidhant Kumar Sahu
13. Mr. Dumesh Meher
14. Ms. G. Deepika
15. Ms. B. Priyanka Patro
16. Mr. Rajeeb Dash

**GIET UNIVERSITY, GUNUPUR**  
**SCHOOL OF SCIENCES**  
**DEPARTMENT OF MATHEMATICS**

**BOARD OF STUDIES**

**Member Present**

SL NO	NAME OF THE MEMBER	DESIGNATION
1	Dr. P. Vijay Kumar	Chairman BOS
2	Prof. (Dr.) Vasudeva Rao Allu	Subject Expert
3	Dr. Biplab Kumar Rath	Faculty Member
4	Dr. V. Ganesh	Faculty Member
5	Dr. Manas Ranjan Sarangi	Faculty Member
6	Dr. Dipana Jyoti Mohanty	Faculty Member
7	Dr. Boina Anil Kumar	Faculty Member
8	Dr. Madhusudan Patro	Faculty Member
9	Dr. Laxmipriya Parida	Faculty Member
10	Dr. Tapas Ranjan Panigrahi	Faculty Member
11	Mr. N Jagannadham	Faculty Member
12	Mr. Sidhant Kumar Sahu	Faculty Member
13	Mr. Dumesh Meher	Faculty Member
14	Ms. G. Deepika	Faculty Member
15	Ms. B. Priyanka Patro	Faculty Member
16	Mr. Rajeeb Dash	Alumini

  
**Chairman, BoS**  
**Department of Mathematics**

  
**Registrar**  
**GIET University, Gunupur**

*Copy to: Chairman BoG, Vice Chancellor, Dean (Academics), Dean/HoD (School of Sciences), for information.*

BoS Approved

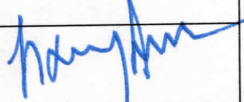
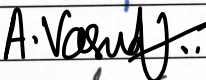
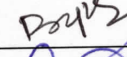
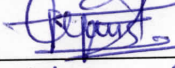
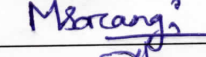

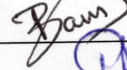
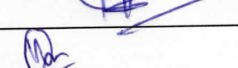

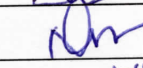
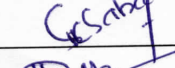
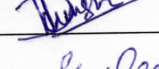
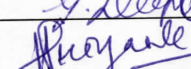
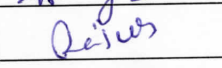
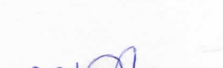
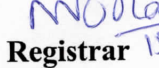
Date: 15.05.2024


**GIET UNIVERSITY, GUNUPUR**  
**SCHOOL OF SCIENCES**  
**DEPARTMENT OF MATHEMATICS**

**MINUTES OF THE MEETING (M. Sc. MATHEMATICS)**

**Member Present**

**Date: 15.05.2024**

SL NO	NAME OF THE MEMBER	DESIGNATION	SIGNATURE
1	Dr. P. Vijay Kumar	Chairman BOS	
2	Prof. (Dr.) Vasudeva Rao Allu	Subject Expert	
3	Dr. Biplob Kumar Rath	Faculty Member	
4	Dr. V. Ganesh	Faculty Member	
5	Dr. Manas Ranjan Sarangi	Faculty Member	
6	Dr. Dipana Jyoti Mohanty	Faculty Member	
7	Dr. Boina Anil Kumar	Faculty Member	
8	Dr. Madhusudan Patro	Faculty Member	
9	Dr. Laxmipriya Parida	Faculty Member	
10	Dr. Tapas Ranjan Panigrahi	Faculty Member	
11	Mr. N Jagannadham	Faculty Member	
12	Mr. Sidhant Kumar Sahu	Faculty Member	
13	Mr. Dumesh Meher	Faculty Member	
14	Ms. G. Deepika	Faculty Member	
15	Ms. B. Priyanka Patro	Faculty Member	
16	Mr. Rajeeb Dash	Alumini	

  
**Chairman, BoS**  
**Department of Mathematics**

  
**Registrar**  
**GIET University, Gunupur**

*Copy to: Chairman BoG, Vice Chancellor, Dean (Academics), Dean/HoD (School of Sciences), for information.*

## Welcome by Chairman BoS:

Dr. P. Vijaya Kumar at the outset extended his cordial welcome to all the members of BoS. In his address he informed that he will try to continue the practices of his predecessors for the development of department in capacity of Chairman. He expressed his confidence in getting the cooperation and supports all members of BoS in discharging his duties to his potential. The following items are discussed and the corresponding resolutions are adopted:

### Agenda- BoS/SS-MATH/24/1/1 (Approval of the Syllabus)

Chairman BoS presented the detailed syllabus for approval as per Annexure- I

Approved syllabus as presented as per Annexure-I

### Resolution No. BoS/SS-MATH /24/1/1

### Agenda- BoS/SS-MATH /24/1/2 (List of Question Setters)

Chairman BoS presented the list of examiners as per Annexure- II (A)

### Resolution No. BoS/SS-MATH /24/1/2 (Approved list examiners as per Annexure-II (A))

### Agenda- BoS/SS-MATH /24/1/3(List of Examiners)

Chairman BoS presented the list of examiners as per Annexure- II (B)

### Resolution No. BoS/SS-MATH /24/1/3

Approved list Question setters as per Annexure-II (B)

### Agenda- BoS/SS-MATH /24/1/4 Any other

### Resolution No. BoS/SS-MATH /24/1/4

## **Minutes of Meeting**

**Date: 15/05/2024**

**Time: 11:30 AM**

**Venue - BIRAC Conference Hall**

### **Chair:**

Prof. (Dr) A. Vasudeva Rao, IIT BBSR

Dr. P. Vijaya Kumar, Professor of Mathematics

Dr. A. B. Srinivasa Rao, DEAN, SOET

Dr. B. Rabi Prasad, HOD, SOS

Attendees: Dr. Biplab Kumar Rath, Dr. V Ganesh, Dr. Manas Ranjan Sarangi,  
Dr. Boina Anil Kumar, Dr. Dipanjyoti Mohanty, Dr. Laxmipriya Parida,  
Dr. Madhusudan Patro, Dr. Tapas Ranjan Panigrahi, Mr. N Jagannadham,  
Mr. Sidhant Kumar Sahu, Mr. Dumesh Meher, Ms. B Priyanka Patro and Ms. G Deepika



## Agenda:

### BOS Meeting

1. Developing the new syllabus for all the subjects of M.Sc. Mathematics for the batch from the Academic year 2024-25
2. Adding/removing few topics in certain subjects as per expert's advice.
3. Introducing computer programming subjects into the curriculum.
4. Revision of syllabus for Regulation-2024.

### Discussion and Decisions:

- It is proposed to change the assessment pattern from 70 external & 30 internal into 60 external and 40 internal marks.
- Each subject will consist of 5 units and all the units will have equal weightage in the internal and external examinations.
- The number of Course Outcomes (COs) will increase from 4 to 6.
- The distribution of theory subjects will be as follows:
  - i. 5 theory subjects in semesters I, II, and III
  - ii. 4 theory subjects in semester IV.
- Laboratory sessions will be included in various semesters as follows:
  - i. 1<sup>st</sup> semester: C Programming & LATEX
  - ii. 2<sup>nd</sup> semester: Python programming and MATLAB.
- The lab assignments replacing project work will be modified as follows:
  - i. LaTeX lab in the 1<sup>ST</sup> semester
  - ii. MATLAB lab in the 2<sup>nd</sup> semester.
- The chair also recommended
  - Swapping Linear Algebra with Abstract Algebra.
  - Real analysis from 3<sup>rd</sup> semester to first semester.
  - Complex Analysis from 3<sup>rd</sup> semester to 2<sup>nd</sup> semester.
  - Topology from 1<sup>st</sup> semester to 3<sup>rd</sup> semester.
  - Number Theoretic Cryptography from 4<sup>th</sup> semester to 3<sup>rd</sup> as compulsory subject.
  - Integral Transforms from 1<sup>st</sup> semester to 3<sup>rd</sup> semester as elective subject.
  - Fuzzy set theory from 1<sup>st</sup> semester to 3<sup>rd</sup> semester as elective subject.
  - Mathematical modelling from 3<sup>rd</sup> semester to 4<sup>th</sup> semester.
  - Additionally, it was advised to include Finite Element Method as an elective paper in the 4<sup>th</sup> semester.
- It has been decided to add new topics and eliminate others as needed.

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B. TOPOLOGY -

- i. Topology by James Dugundji should be referenced.
- ii. Include some NPTEL lectures for the elective papers.

C. OPTIMIZATION TECHNIQUES -

- i. Unit 4 should be divided into two separate units. as i) Games. ii) nonlinear programming. By removal of queuing theory & inclusion of job sequencing, PERT&CPM and Dynamic programming.

D. DISSERTATION -1-

- i. Identification of problem statement and completion of synopsis.

**Fourth semester**

A. FUNCTIONAL ANALYSIS -

- i. The syllabus shall be appropriately reduced and revised.
- ii. Foundation of Functional Analysis by S. Ponnuswamy is added in reference.

B. NUMBER THEORETIC CRYPTOGRAPHY -

- i. Reduce the syllabus of Unit-5 as required.

C. THEORY OF COMPUTATIONS -

- i. Adjust the number of hours for Units 2 and 3 to 12 hours and 13 hours, respectively.

D. MATHEMATICAL MODELLING -

- i. The syllabus should be appropriately reduced.

E. DISSERTATION -II - About the distribution of marks.

- i. Results and discussions should carry 40% marks, while presentations & seminars should carry a total of 40% marks. And for viva 20% of marks.

**Action Points:**

1. The lab syllabus of MATLAB should be updated to include:
  - a. MATLAB- 1<sup>st</sup> semester
  - b. Data analysis using R - 2<sup>nd</sup> semester.
2. The syllabus of Mathematical statistics should be revised and suggested to include stochastic process and the title may be changed into probability and stochastic process.
3. Include NPTEL lectures for the elective papers.
4. Include publisher names and volumes in every reference book.
5. Adjust the number of hours for each topic according to the requirements of the topics.

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1	Dr. Biplab Kumar Rath		8	Dr. Tapas Ranjan Panigrahi	
2	Dr. V. Ganesh		9	Mr. Jagannadham	
3	Dr. Manas Ranjan Sarangi		10	Mr. Sidhant Kumar Sahu	
4	Dr. Boina Anil Kumar		11	Mr. Dumesh Meher	
5	Dr. Dipanjyoti Mohanty		12	Ms. B Priyanka Patro	
6	Dr. Laxmipriya Parida		13	Ms. G Deepika	
7	Dr. Madhusudan Patro		14	Mr. Rajeeb Dash	

*The open elective course will be offered by the department or one MOOC/NPTEL Course may be chosen by the student approved by the department.*

As there is no other point, the meeting is ended with a vote of thanks by the Chairman BoS.

  
Chairman, BoS

Department of Mathematics

*Copy Submitted for approval: Chairman BoG/Chairman (Academic Council)/Dean/HoD(SoS)*

*(Copy Submitted for reference: Registrar/CoE/Dean (Academic)/Dean (Administration)/Dean (R&D)/all concerned members*

<p>BoS Approved Date:15.05.2024</p>
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**ANNEXURE - II (A)**  
**GIET UNIVERSITY, GUNUPUR**  
**SCHOOL OF SCIENCES**  
**DEPARTMENT OF MATHEMATICS**

**LIST OF EXAMINERS**

SL. NO.	NAME OF THE MEMBER	DESIGNATION	MOBILE NO
1	Dr. Padmanava Samanta	Retd. Professor, Berhampur University.	9090512992
2	Dr. S. K. Paikray	Professor, VSSUT, Burla.	9437170125
3	Prof. U. K. Misra	Retd. Professor, Berhampur University.	9438000018
4	Dr. Biplab Kumar Rath	Associate Professor GIETU, Gunupur.	9437746902
5	Dr. V Ganesh	Assistant Professor GIETU, Gunupur.	7978002819
6	Dr. Laxmipriya Parida	Assistant Professor GIETU, Gunupur.	9776456722
7	Dr. Manas Ranjan Sarangi	Assistant Professor GIETU, Gunupur.	9776145166
8	Dr. Boina Anil Kumar	Assistant Professor GIETU, Gunupur.	9861963016
9	Dr. Tapas Kumar Panigrahi	Assistant Professor GIETU, Gunupur.	9337428994
10	Dr. Madhusudhan Patro	Assistant Professor GIETU, Gunupur.	9938898378

BoS Approved

Date:15.05.2024



**ANNEXURE - II (B)**  
**GIET UNIVERSITY, GUNUPUR**  
**SCHOOL OF SCIENCES**  
**DEPARTMENT OF MATHEMATICS**

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**LIST OF QUESTION SETTERS**

SL. NO.	PAPER	NAME OF THE MEMBER	DESIGNATION	MOBILE NO
1	Functional analysis	Prof .Kasiviswandum	Asst. Prof IISER, Berhampur.	9559297116
2	Mathematical Statistics	Dr. A J Khan	Prof. MATS University.	88894 22786
3	Complex analysis	Dr. Bikramaditya Sahu	Asst. Prof., NIT Rourkela.	8456920529
4.	Partial Differential Equations	Dr. Tejaswini Pradhan	Asst. Prof., Kalinga University, Chhattisgarh.	9692684066
5	Abstract algebra	Dr. Manoj Kumar Singh	Asst. Prof., VIT Chennai.	9709775748
6	Linear Algebra	Dr. Smruti Ranjan Mohapatra	Associate Prof. VSSUT Burla.	9439510416
7	Graph Theory	Dr. S. K. Paikray	Professor, VSSUT Burla.	9437170125
8	Real analysis, ODE	Prof. U. K. Misra	Retd. Professor Berhampur University.	9438000018
9	Numerical analysis	Dr. S. K. Pradhan	Associate Prof., VSSUT Burla	9583489086
10	Topology	Dr. T. Lingaraju	Associate Prof., Andhra University	6281301829

BoS Approved

Date 15.05.2024



**M.Sc. MATHEMATICS**  
**(SEMESTER PATTERN)**  
**CHOICE BASED CREDIT SYSTEM (CBCS)**  
**TWO YEARS FULL TIME PROGRAMME**  
**COURSE OF STUDIES AR-24**



**GIET UNIVERSITY,**  
**GUNUPUR, ODISHA**

All the precautions have been taken to print the course curriculum accurate. However, mistakes if any will be corrected as and when noticed. The university reserves the right to include /exclude any content at any point of time during the progression of the course.

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15/5/24

**M.Sc. MATHEMATICS**  
 Schedule for Instruction and Examination  
 (Proposed Scheme for Academic year 2024-2026)

**1<sup>st</sup> Semester (1<sup>st</sup> Year)**

Sl. No.	Course Category	Course Code	Course Title	L	T	P	Credits
<b>THEORY</b>							
1	PC	24MTPC1001	Linear Algebra	3	1	0	4
2	PC	24MTPC1002	Real Analysis	4	0	0	4
3	PC	24MTPC1003	Numerical Analysis	3	1	0	4
4	PC	24MTPC1004	Ordinary Differential Equation	4	0	0	4
5	PC	24MTPC1005	Programming in C	3	1	0	4
<b>PRACTICAL / SESSIONAL</b>							
6	PC	24MTPC1105	Programming in C Lab	0	0	4	2
7	PC	24MTPC1106	Matlab	0	0	4	1
<b>TOTAL</b>				<b>17</b>	<b>3</b>	<b>8</b>	<b>23</b>

**2<sup>nd</sup> Semester (1<sup>st</sup> Year)**

Sl. No.	Course Category	Course Code	Course Title	L	T	P	Credits
<b>THEORY</b>							
1	PC	24MTPC2001	Abstract Algebra	3	1	0	4
2	PC	24MTPC2002	Complex Analysis	4	0	0	4
3	PC	24MTPC2003	Partial Differential Equations	3	1	0	4
4	PC	24MTPC2004	Programming Using Python	3	1	0	4
5	PC	24MTPC2005	Graph Theory	4	0	0	4
<b>PRACTICAL / SESSIONAL</b>							
6	PC	24MTPC2104	Programming Using Python Lab	0	0	4	2
7	PC	24MTPC2105	Documentation Using Latex	0	0	4	1
<b>TOTAL</b>				<b>16</b>	<b>4</b>	<b>8</b>	<b>23</b>

*[Handwritten Signature]*  
15/5/24

**3<sup>rd</sup> Semester (2<sup>nd</sup> Year)**

Sl. No.	Course Category	Course Code	Course Title	L	T	P	Credits
<b>THEORY</b>							
1	PC	24MTPC3001	Probability and Stochastic Processes	3	1	0	4
2	PC	24MTPC3002	Topology	4	0	0	4
3	PC	24MTPC3003	Number Theoretic Cryptography				
4	PE	24MTPE3011	Integral Transforms	4	0	0	4
		24MTPE3012	Fuzzy Set Theory				
		24MTPE3013	Introduction to Data Science				
5	PE	24MTPE3021	Optimization Techniques	4	0	0	4
		24MTPE3022	Finite Element Methods				
		24MTPE3023	Differential Geometry				
<b>PRACTICAL / SESSIONAL</b>							
6	PC	24MTPW3011	Dissertation – Phase I	0	0	4	2
<b>TOTAL</b>				<b>18</b>	<b>2</b>	<b>4</b>	<b>22</b>

**4<sup>th</sup> Semester (2<sup>nd</sup> Year)**

Sl. No.	Course Category	Course Code	Course Title	L	T	P	Credits
<b>THEORY</b>							
1	PC	24MTPC4001	Functional Analysis	3	1	0	4
2	PE	24MTPE4011	Introduction to Machine Learning	4	0	0	4
		24MTPE4012	Design and Analysis of Algorithms				
		24MTPE4013	Linear Regression Analysis				
3	PE	24MTPE4021	Theory of Computation	3	0	0	3
		24MTPE4022	Number Theory				
		24MTPE4023	Mathematical Modelling				
4	OE	24MTOE4011	Ethics & IPR	3	0	0	3
<b>PRACTICAL / SESSIONAL</b>							
5	PC	24MTPW4011	Dissertation – Phase II	0	0	16	8
<b>TOTAL</b>				<b>18</b>	<b>2</b>	<b>16</b>	<b>22</b>

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15/5/20







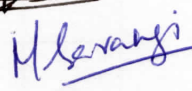
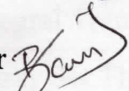

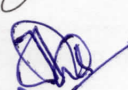

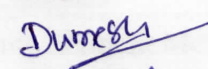

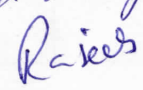
# M. SC. MATHEMATICS SYLLABUS STRUCTURE

(CREDIT- HOUR- MARKS SYSTEM 2024-2026)

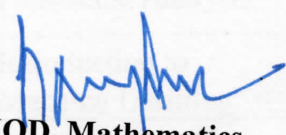
Semester	Course	Course Title	Hours per Week	Credits	Exam Hours	Marks		
			L-T-P	L-T-P	L-T-P	Mid Sem	End Sem	Total
<b>1</b>	<b>THEORY</b>							
	24MTPC1001	Linear Algebra	4	4	3	40	60	100
	24MTPC1002	Real Analysis	4	4	3	40	60	100
	24MTPC1003	Numerical Analysis	4	4	3	40	60	100
	24MTPC1004	Ordinary Differential Equation	4	4	3	40	60	100
	24MTPC1005	Programming in C	4	4	3	40	60	100
	<b>PRACTICAL / SESSIONAL</b>							
	24MTPC1105	Programming in C Lab	4	2	3	0	100	100
	24MTPC1106	MATLAB	2	1	3	0	50	50
	<b>TOTAL</b>		<b>26</b>	<b>23</b>	<b>21</b>			<b>650</b>
<b>2</b>	<b>THEORY</b>							
	24MTPC2001	Abstract Algebra	4	4	3	30	70	100
	24MTPC2002	Complex Analysis	4	4	3	30	70	100
	24MTPC2003	Partial Differential Equations	4	4	3	30	70	100
	24MTPC2004	Programming Using Python	4	4	3	30	70	100
	24MTPC2005	Graph Theory	4	4	3	30	70	100

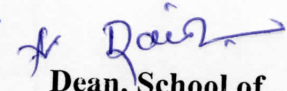
PRACTICAL / SESSIONAL							
24MTPC2104	Programming Using Python Lab	4	2	3	0	100	100
24MTPC2105	Documentation using LATEX	2	1	3	0	50	50
TOTAL		26	23	21			650

**BOS Members:**

Sl. No	Name of the member	Signature	Sl. No	Name of the member	Signature
1	Dr. P. Vijaya Kumar		2	Prof. (Dr.) Vasudeva Rao Allu	
3	Dr. Biplab Kumar Rath		4	Dr. V. Ganesh	
5	Dr. Dipana J. Mohanty		6	Dr. Manas R. Sarangi	
7	Dr. Boina Anil Kumar		8	Dr. Madhusudan Patro	
9	Dr. Tapas R. Panigrahi		10	Dr. Laxmipriya Parida	
11	Mr. N Jagannadham		12	Mr. Sidhant Kumar Sahu	
13	Mr. Dumesh Meher		14	Ms. G. Deepika	
15	Ms. B. Priyanka Patro		16	Mr. Rajeeb Dash	

BoS Approved

  
HOD, Mathematics

  
Dean, School of  
Sciences

Dean, Academics

Date: 15-05-24

School of Sciences

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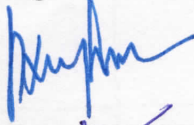

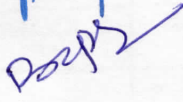
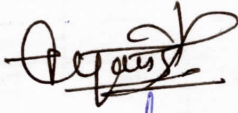
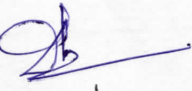
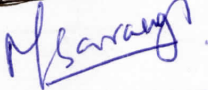
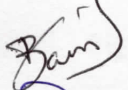





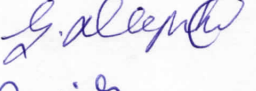
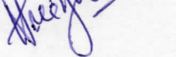
GIET University

**M. SC. MATHEMATICS SYLLABUS STRUCTURE**  
**(CREDIT- HOUR- MARKS SYSTEM 2024-2026)**

Semester	Course	Course Title	Hours per Week	Credits	Exam Hours	Marks		
			L-T-P	L-T-P	L-T-P	Mid Sem	End Sem	Total
3	<b>THEORY</b>							
	24MTPC3001	Probability and Stochastic Processes	4	4	3	30	70	100
	24MTPC3002	Topology	4	4	3	30	70	100
	24MTPC3003	Number Theoretic Cryptography	4	4	3	30	70	100
	24MTPC3011	Integral Transforms	4	4	3	30	70	100
	24MTPC3012	Fuzzy Set Theory						
	24MTPC3013	Introduction to Data Science						
	24MTPE3031	Optimization Techniques	4	4	3	30	70	100
	24MTPE3032	Finite Element Methods						
	24MTPE3033	Differential Geometry						
	<b>PRACTICAL / SESSIONAL</b>							
24MTPW3011	Dissertation – Phase I	4	2	3	0	0	100	
<b>TOTAL</b>			<b>24</b>	<b>22</b>	<b>18</b>			<b>600</b>
4	<b>THEORY</b>							
	24MTPC4001	Functional Analysis	4	4	3	30	70	100
	24MTPE4011	Introduction to Machine Learning	4	4	3	30	70	100
	24MTPE4012	Design and Analysis of Algorithms						
	24MTPE4013	Linear Regression Analysis						
	24MTPE3011	Theory of Computation	4	3	3	30	70	100
	24MTPE3011	Number Theory						

24MTPE3011	Mathematical Modelling						
24MTOE3011	Ethics & IPR	4	3	3	30	70	100
<b>PRACTICAL / SESSIONAL</b>							
24MTPW4011	Dissertation – Phase II	16	8	6			400
<b>TOTAL</b>		<b>32</b>	<b>22</b>	<b>18</b>			<b>800</b>
<b>GRAND TOTAL</b>		<b>108</b>	<b>90</b>				<b>2700</b>

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BoS Approved

Date: 15.05.24

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School of Sciences

Dean, School of Sciences

GIET University

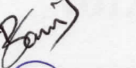
Dean, Academics

GIET University

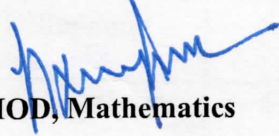
**SCHEME OF INSTRUCTIONS SUMMARY**

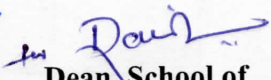
Sl. No	COURSEWORK SUBJECTS AREA	CREDITS/SEMESTER				TOTAL CREDITS	
		I	II	III	IV	Total	%
		650 Marks	650 Marks	600 Marks	800 Marks	2700 Marks	
1	Professional Course (PC)	23	23	12	4	62	69
2	Professional Electives (PE)	-	-	8	4	12	13
3	Choice Based Open Electives (CBOE)/ Open Electives (OE)	----	-	----	6	6	7
4	Project Work, Seminar and/or Internship in Industry or Elsewhere (PC)	-	-	2	8	10	11
5	Value added Courses /MOOCS	----	----	----	----	----	----
<b>TOTAL</b>		<b>23</b>	<b>23</b>	<b>22</b>	<b>22</b>	<b>90</b>	<b>100</b>

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