# I. K. Gujral Punjab Technical University <u>Department of Mathematical Sciences</u>

Ref No.: IKGPTU/DMS/501

Dated: 24/07/2018

### Minutes of the meeting of Board of Studies (BOS) of Mathematics held on July 24, 2018

The meeting of Board of studies of Mathematics was held on 24/07/2018. The following members were present in the meeting

- 1. Prof. D.S. Pathania
- 2. Dr. Ashish Aarora
- 3. Dr. Honey Sharma
- 4. Dr. Harpreet Kaur
- 5. Dr. Gurjinder Singh
- 6. Dr. Vikramjeet Singh
- 7. Dr. Rajesh Narula (Special Invitee)
- 8. Dr. Megha Goyal (BOS Coordinator)

The following recommendations were given by the Board:

### Agenda 1. Finalizing the scheme of M.Sc. (Mathematics) for batch 2018 onwards:

The board finalized the scheme and syllabus of 3<sup>rd</sup> and 4<sup>th</sup> semester of M.Sc. (Mathematics) for batch 2018 onwards. The Board recommended that on page 1 of the scheme and structure of M.Sc. Mathematics for Batch 2018 onwards, the word "Course" should be replaced with "Program" and the objectives of the Program may be extended including teaching as one of the objectives. Eligibility condition for admission in M.Sc. Mathematics should be read as "B.A./B.Sc. or equivalent from a recognized university with Mathematics as one of the major subjects with at least 50% marks in aggregate".

### Agenda 2. Revision of the course contents of the subjects Mathematical Statistics and Mechanics-II of M.Sc. (Mathematics) for batch 2018 onwards:

It was recommended by the Board that for revision and formation of course contents of subjects Mathematical Statistics and Mechanics-II, external experts of different Universities may be requested.

The following is the list of courses and the corresponding experts as recommended by the Board:

S. No	Course Code	Course Title	Expert	University
1.	MSM-303, MSM-402	Mathematical Statistics	Prof. Narinder Kumar	,
2.	MSM-401	Mechanics-II	Prof. S.K. Tomar	Panjab University

A. D.

Heghe Gl

Ros 1

de

# I. K. Gujral Punjab Technical University <u>Department of Mathematical Sciences</u>

The syllabus of the subject Mathematical Statistics-I & II with subject codes MSM-303 and MSM-402 should be merged and may be assigned a single subject code, that is, MSM303-18. The subject code of Mechanics-II should be MSM305-18.

## Agenda 3. To introduce the subject Differential Geometry as Core subject and Advanced Topology as Elective subject in Semester IV for batch 2018 onwards.

It was recommended by the Board that the subject Differential Geometry should be introduced as a core subject and Advanced Topology as an Elective subject in Semester IV for batch 2018 onwards. The subject code MSM401-18 may be assigned to the subject Differential Geometry and MSM513-18 may be assigned to the subject Advanced Topology. For revision and formation of course contents of these subjects, the following subject experts are recommended by the Board:

1.	MSM401-18	Differential Geometry	Dr. Kumar	Rakesh	Punjabi University
2.	MSM513-18	Advanced Topology	Prof. Noorie	N.S.	Panjabi University

### Agenda 4. <u>To revise and merge the list of Elective-I, II and III subjects of various courses of M.Sc.</u> (Mathematics) for the batch 2018 onwards.

It was recommended by the board to merge the list of Elective-I, II, III and make one comprehensive list of electives to be offered in  $4^{\rm th}$  semester.

## Agenda 5. To finalize the Choice based credit scheme of M.Sc. (Mathematics) as per the approved skeleton of M.Sc. courses by IKG Punjab Technical University.

The board recommended the changes in credits as per the approved system of 25 marks equal to one credit for all theory and lab courses. A lab on Number theory and Cryptography was recommended by the board to be introduced in third semester and the subject code MSM306-18 may be assigned to it. The revised structure and scheme of M. Sc Mathematics for the batch 2018 onwards as recommended by board should be as under.

**First Semester** 

Contact Hours: 28 Hrs.

Course Code	Course Title	Load Allocation			Marks Distribution			Credits
		L	Т	Р	Internal	External	Total	

Aoudoor Megle Ext for Ole

#### I. K. Gujral Punjab Technical University **Department of Mathematical Sciences**

MSM101-18	Algebra-I	4	1	0	30	70	100	4
MSM102-18	Real Analysis-I	4	1	0	30	70	100	4
MSM103-18	Complex Analysis	4	1	0	30	70	100	4
MSM104-18	Ordinary Differential Equations and Special Functions	4	1	0	30	70	100	4
MSM105-18	Mathematical Methods	4	1	0	30	70	100	4
MSM106-18	Introduction to Computer Algebra System (Lab)	0	0	3	50	25	75	3
Total		20	05	03	200	375	575	23

#### **Second Semester**

Contact Hours: 28 Hrs.

Course Code	Course Title	Load Allocation			Marks Distribution			Credits
		L	Т	Р	Internal	External	Total	
MSM201-18	Algebra-II	4	1	0	30	70	100	4
MSM202-18	Real Analysis-II	4	1	0	30	70	100	4
MSM203-18	Mechanics-I	4	1	0	30	70	100	4
MSM204-18	Partial Differential Equations	4	1	0	30	70	100	4
MSM205-18	Numerical Analysis	4	1	0	30	70	100	4
MSM206-18	Numerical Analysis (Lab)	0	0	3	50	25	75	3
Total		20	5	3	200	375	575	23

#### **Third Semester**

Contact Hours: 27 Hrs.

Course Code	Course Title		Allocation		Marks Di	stribution		Credits
		L	Т	Р	Internal	External	Total	

Aouthon. regla El fil aux are

# I. K. Gujral Punjab Technical University <u>Department of Mathematical Sciences</u>

MSM301-18	Topology	4	1	0	30	70	100	4
MSM302-18	Number Theory and Cryptography	4	1	0	30	70	100	4
MSM303-18	Mathematical Statistics	4	1	0	30	70	100	4
MSM304-18	Functional Analysis	4	1	0	30	70	100	4
MSM305-18	Mechanics-II	4	1	0	30	70	100	4
MSM306-18	Number Theory and Cryptography (Lab)	0	0	2	33	17	50	2
Total		20	05	03	183	367	550	22

#### **Fourth Semester**

Contact Hours: 35 Hrs.

Course Code	Course Title	Load Allocation		Marks D	Credits			
		L	Т	Р	Internal	External	Total	
MSM401-18	Differential Geometry	4	1	0	30	70	100	4
MSM WWW	Elective	4	1	0	30	70	100	4
MSM XXX	Elective	4	1	0	30	70	100	4
MSM YYY	Elective	4	1	0	30	70	100	4
MSM ZZZ	Elective	4	1	0	30	70	100	4
MSM601-18	Dissertation	0	0	10	250	-	250	10
Total		20	05	8	400	350	750	30

## Agenda 6. To revise the course and syllabus of Mathematics of B.Tech-I semester civil engineering as per AICTE model curriculum.

On the basis of queries received from various colleges, the Board recommended that the syllabus of B. Tech  $\mathbf{1}^{\text{st}}$  semester Civil branch as recommended by AICTE should be revised and modules 4b-d of Matrices and Vector Spaces should be deleted.

Agenda 7. Rectification of the nomenclature of M.Sc. program on examination portal of IKGPTU.

The board taken a serious note of the appearance of M. Sc. (Applied Mathematics) on the examination portal ptudocs.com of IKGPTU. The terminology Applied Mathematics was never

Dus frills

3 regli Ext

Ce

### I. K. Gujral Punjab Technical University **Department of Mathematical Sciences**

The board taken a serious note of the appearance of M. Sc. (Applied Mathematics) on the examination portal ptudocs.com of IKGPTU. The terminology Applied Mathematics was never approved by the board and is misleading and must be rectified. The word applied should be removed as the nomenclature of the program is M.Sc. (Mathematics).

The meeting ended with the vote of thanks.

Dr. D.S. Pathania

Dr. Ashish Arora

Dr. R.K. Narula 24/7/2018 Dr. Harpreet Kaur

Dr. Gurjinder Singh

Dr. Vikramjeet Singh

Megha Gol Dr. Megha Goyal