

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

Ref No.: IKGPTU/DMS/356

Dated: 15/03/2018

**Minutes of the meeting of Board of Studies (BOS) of Mathematics held on
March 15, 2018**

The meeting of Board of studies of Mathematics was held on 15/03/2018. The following members were present in the meeting

1. Prof. Om Prakash
2. Prof. Vinay Kanwar
3. Dr. G.N. Verma
4. Dr. S. K. Srivastava
5. Dr. Ashish Aarora
6. Dr. Honey Sharma
7. Dr. Harpreet Kaur
8. Dr. Gurjinder Singh
9. Dr. Rajesh Narula (Special Invitee)
10. Dr. Megha Goyal (Special Invitee)

The following recommendations were given by the Board:

Agenda 1. The board confirmed the minutes of last BOS meeting which was held on July 11, 2017.

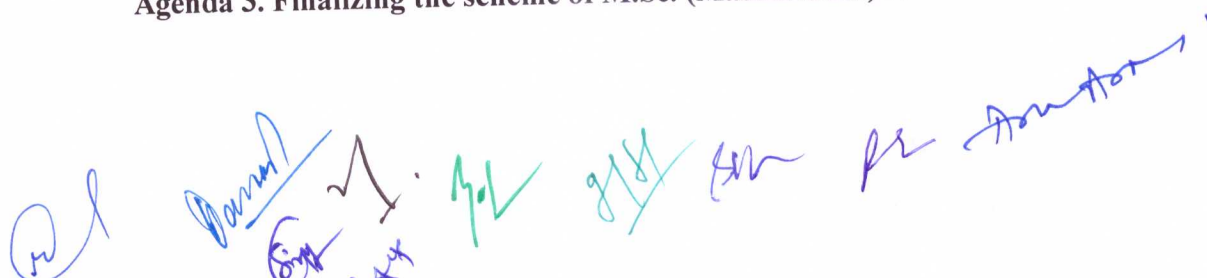
Agenda 2. Revision of course contents:

It was recommended by the Board that for revision of course contents of remaining subjects of third and fourth semesters of M. Sc. (Mathematics) 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-301	Topology	Dr. N. S. Noorie	Punjabi University
2.	MSM-303	Mathematical Statistics-I	Prof. Narinder Kumar	Panjab University
3.	MSM-401	Mechanics-II	Prof. S.K. Tomar	Panjab University
4.	MSM-402	Mathematical Statistics-II	Prof. Narinder Kumar	Panjab University
5.	MSM-403	Tensors And Differential Geometry	Prof. R. K. Nagaich	Punjabi University

Agenda 3. Finalizing the scheme of M.Sc. (Mathematics) for batch 2018 onwards.



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

1) **Change of Elective Courses:**

The Elective-II course Advanced Operations Research (MSM-506) should be replaced by Advanced Number Theory and the course code MSM-506 may be assigned to Advanced Number Theory for the batch 2018 onwards. And the syllabus of Advanced Number Theory may be reviewed by subject expert Prof. A.K. Agarwal, Department of Mathematics, Panjab University, Chandigarh. Board also suggested that Discrete Mathematics should be added in the list of Elective-I subjects and the course code MSM-500 may be given to this subject.

2) **Inclusion of Course objectives & Program Objectives:**

It was recommended by the members of board that course objectives and outcomes should also be provided by the experts developing the course contents.

3) **Change of Credits for Theory and Labs:**

The Board recommended that the credits of Theory lectures should be changed from 5 (five) credits to 4 (four) credits and the credits of Labs should be changed from 1 (one) credit to 2 (two) credits. Also, the teaching hours of Labs should now be increased to 4 (four) hrs./week as per the increase in credits. 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: 27 Hrs.

Course Code	Course Title	Load Allocation			Marks Distribution			Credits
		L	T	P	Internal	External	Total	
MSM-101	Algebra-I	4	1	0	30	70	100	5
MSM -102	Real Analysis-I	4	1	0	30	70	100	5
MSM -103	Complex Analysis	4	1	0	30	70	100	5
MSM -104	Ordinary Differential Equations and Special Functions	4	1	0	30	70	100	5
MSM -105	Mathematical Methods	4	1	0	30	70	100	5
MSM -106	Introduction to Computer Algebra System (Lab)	0	0	4	30	20	50	2
Total		20	05	04	180	370	550	27

[Handwritten signatures and initials in blue, green, and black ink]

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

Second Semester

Contact Hours: 27 Hrs.

Course Code	Course Title	Load Allocation			Marks Distribution			Credits
		L	T	P	Internal	External	Total	
MSM -201	Algebra-II	4	1	0	30	70	100	5
MSM -202	Real Analysis-II	4	1	0	30	70	100	5
MSM -203	Mechanics-I	4	1	0	30	70	100	5
MSM -204	Partial Differential Equations	4	1	0	30	70	100	5
MSM -205	Numerical Analysis	4	1	0	30	70	100	5
MSM -206	Numerical Analysis (Lab)	0	0	4	30	20	50	2
Total		20	5	4	180	370	550	27

The board recommended to bifurcate the 30 marks of internal examination as under.

Assignment/seminar/Attendance	MST	Total
10	20	30

The board decided to update the scheme of 3rd and 4th semester for 2018 batch onwards in next meeting. It was also recommended by the board that credit of each core subject should be 5 and the policy document stating (100 marks=4 credits; Skeleton of M.Sc.) should be reviewed.

4) Revision of Instructions for paper setters and candidates:

The following changes were recommended by the Board for examination of M.Sc. (Mathematics) for the batch 2018 onwards.

- The entire question paper should be distributed into three sections viz. Section-A, Section-B, Section-C.
- Section-A should contain five questions of two marks each. This section should cover the entire syllabus. All questions in this section should be compulsory.
- Section-B and Section-C should contain three questions each carrying 15 (fifteen) marks.
- Student should be asked to attempt at least two questions from Section-B and Section-C each.

5) Revision in the list of recommended books of various courses:

The Board suggested the following books to be incorporated in the list of Recommended books of various courses.

S. No	Course Code	Course Title	Recommended Book
-------	-------------	--------------	------------------

[Handwritten signatures and initials in blue and green ink are present below the table header.]

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

1.	MSM-510	Advanced Numerical Methods	1. M. K. Jain, S. R. K Iyengar and R. K. Jain, Computational Methods for Partial Differential Equations, New Age International Publishers, 2nd Ed. 2016. 2. Curtis F. Gerald, Applied Numerical Analysis, Pearson Education, 7th Ed.
2.	MSM-103	Complex Analysis	1. R. Roop Kumar, Complex Analysis, Pearson Education, 2015
3.		Engineering Mathematics	1. Das and Vijay Kumari, Engineering Mathematics, Pearson Education

Agenda 4. Finalizing the syllabus of B.Tech (all semesters) as per AICTE guidelines.

The Board recommended that the syllabus of B. Tech (all semesters) as recommended by AICTE will be adopted as such. But keeping in view that the syllabus is too vast to be covered in 3+1 and 2+1 systems, and also keeping in view the student's previous knowledge in the field of Mathematics and the difficulty of the course contents of Maths-I, Maths-II, Maths Paper-1, Maths Paper-2 etc., the Board suggested that the recommended Scheme and Credit of these courses as suggested by AICTE


L	T	P	Credits
3	1	0	4

may be replaced by

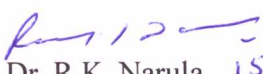
L	T	P	Credits
4	1	0	5

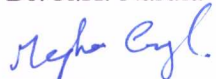
It was also noted by the board that in the model curriculum developed by AICTE, the credits and teaching hours are not compatible for Mathematics-2 and Mathematics-III given on page number 16 and 90, respectively.

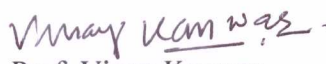
The meeting ended with the vote of thanks.


Prof. Om Prakash


Dr. S. K. Srivastva


Dr. R.K. Narula


Dr. Megha Goyal


Prof. Vinay Kanwar


Dr. Ashish Arora


Dr. Harpreet Kaur


Dr. G.N. Verma


Dr. Honey Sharma


Dr. Gurjinder Singh