



THE IIS UNIVERSITY

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Minutes for the Twelfth meeting of the Board of Studies in Mathematics held on 26.02.2018 at 11.00 a.m. at the ICG Campus, Jaipur

All the following members were present:

S. No.	Name	Designation
1.	Prof. K. S. Sharma Advisor, The IIS University, Jaipur	Chairperson
2.	Prof. Tej Bahadur Singh, Professor in Maths, Delhi University, Delhi-110007	External Member (Academician)
3.	Dr. Girish Mishra, Scientist "E", Scientist Analysis Group, DRDO, Metacalfe House, Civil Lines, Delhi-110054	External Member (Industry Expert)
4.	Ms. Rajbala	External Member (Alumnae)
5.	Dr. Sanjay Kedia	Member
6.	Dr. Rajni Gupta	Member
7.	Ms. Meenakshi Singhal	Member
8.	Ms. Ekta Mittal	Member
9.	Ms. Mudita Menon	Member
10.	Ms. Radhika Khandelwal	Member
11.	Ms. Pallavi Sharma	Member
12.	Dr. Surendra Kumar Agarwal	Convener

At the outset, Prof. K. S. Sharma, Advisor, The IIS University welcomed all the members of the BOS.

The agenda items were taken up and after considerable deliberations, following decisions were taken:

1. The Minutes of the last meeting held on 11.02.2017 were considered and unanimously confirmed.
2. The syllabi of B.Sc. (pass course)/ B.A. (Hons.) Subsidiary/ B.Sc.(Hons.) Subsidiary/ B.Sc. B.Ed. for the academic year 2018-21 (Semester I and VI) and M.A./M.Sc. for the academic year 2018-20 (Semester I and IV) were considered. On perusal of the



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syllabi the external BOS members recommended major changes in the both U.G. and P.G. curriculum, as per the list enclosed.

All members felt the need of the curriculum development workshop to revise the syllabi as per the latest developments in the different areas of Mathematics. As such, it is suggested that a two days curriculum development workshop may be organized in the month of April/May-2018 with 3-4 external experts of different areas along with the present external members of BOS, so that the syllabi at different levels may be discussed in detail and old papers be revised and new papers be introduced. This will help faculty and students to better prepare the Mathematics courses.

3. (i) The syllabi of B.Sc.(pass course), B.A. (Hons.)Subsidiary/B.Sc.(Hons.) Subsidiary B.Sc. B.Ed. for the academic session 2016-17 (for Semester V and VI in 2018-19) and of 2017-18 (for Semester III and IV in the session 2018-19) were approved.
- (ii) The syllabi of M.A./ M.Sc. for the academic session 2017-18 (for Semester III & IV in the academic session 2018-19) were also approved.
4. The proposed course structure and syllabi of B.Sc. (Pass Course)/ B.A. (Hons.)Subsidiary /B.Sc. (Hons.) Subsidiary/ B.Sc. B.Ed. for the academic year 2018-21 (Semester I to VI) under Choice Based Credit System (CBCS) were discussed and approved along with some modifications suggested by the external experts.
5. The BOS Co-opted Dr. Rajni Gupta as Member of the Examiners' Selection Committee for the period of one year (Academic year 2018-19).
6. The BOS Committee observed the question papers of Semester-II, IV and VI Examinations April –May 2017 and Semesters I, III and V Examinations November –December 2017 and found them up to mark.
7. The Examiner's Reports of Semester-II, IV and VI Examinations April-May 2017 and Semesters-I, III and V Examinations November-December 2017 were also considered and the department was advised to take a note of the suggestions, if any.
8. The BOS committee approved the syllabi of course work for M.Phil. / Ph.D. Programme for the academic session 2018-19.
9. The consolidated panel of examiners was considered and approved along with some additions.
10. The meeting ended with a vote of thanks.


Dr. Raakhi Gupta
Registrar


Prof. K. S. Sharma
Advisor, The IIS University


Dr. Surendra K. Agarwal
Convener



1- Curriculum Development Workshop

I. Objectives of the Committee:

The purpose of Curriculum Development Workshop is to monitor, evaluate and continuously improve the study plan to fulfill the college mission in general and lead towards achievement of the program outcome based on the input from Quality Assurance Unit, faculty, students and other stakeholders to meet the changing needs of the curriculum. The Curriculum Development Workshop design and implement strategies for final revision of study plan within the framework provided by The IIS University to be in pace with recent advancement in the knowledge and practice of Mathematics.

Members:

1. Prof. R.K. Mohanty – Dean faculty of sciences South Asian University, New Delhi
2. Prof. R.K. Sharma – Former Head Department of Mathematics IIT Delhi
3. Prof. P.K. Banerji – Retired Prof. Jay Narayan Vyas University, Jodhpur.
4. Prof. S.P. Goyal - Retired Prof. University of Rajasthan, Jaipur.
5. Prof. P.R. Sharma - Retired Prof. University of Rajasthan, Jaipur.
6. Dr. K.N. Singh - Retired Associate Prof. University of Rajasthan, Jaipur.
7. Dr. Sanjay Kedia -
8. Dr. Rajni Gupta
9. Ms. Meenakshi Singhal
10. Ms. Mudita Menon
11. Ms. Ekta Mittal
12. Ms. Radhika Khandelwal
13. Ms. Pallavi Sharma
14. Dr. Surendra Kumar Agarwal

III. Days and dates of workshop,

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|---------------|-------------|
| 1. First Day | May 5, 2018 |
| 2. Second Day | May 6, 2018 |

Summary of Accomplishments

1. Prof. Pradeep Bhatnagar, Dean of Science, The IIS University, gave welcome note to the invited guests. In his welcome note he mentioned that Mathematics is the mother of Science. He also said that we cannot imagine the growth in the Science field without Mathematics, so this workshop is going to play a very important role to improve our curriculum.
2. Prof K.S. Sharma, Advisor, The IIS University, enlightened the credit system, course structure and examination pattern to our guests so that they can suggest their views accordingly. He suggested that we should introduce some more recent papers in our syllabus so that our students get to learn the recent research and can go anywhere in the country or to outside world.



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3. Prof. S. P. Goyal, Emeritus Scientist, Rtd. Professor, University of Rajasthan, added that we should go through the syllabus of state and the nearby universities rather than directly changing the syllabus of our university because if the student is coming in our PG program then she could adopt our syllabus with comfort. On the above Prof K.S. Sharma replied that we should also think about our outgoing students as they are going to represent our University further.
4. Dr. Surendra Kumar Agarwal, Head, Department of Mathematics, The IIS University, proposed that UG program will be discussed together and in continuation PG program will be distributed among three teams according to their area of specialization/Interest.

Revised syllabus of UG program: After 6-7 hrs. of discussion we concluded syllabus with paper Codes. Table is given below-

S.No.	Paper Code	Old Paper Title	New Paper Title	Remark
1.	MAT 101	Discrete Mathematics	Discrete Mathematics and Number Theory	First three units of discrete and rest two is of Number Theory
2.	MAT 102	Differential Calculus	Differential Calculus	Syllabus has been updated with the major changes
3.	MAT 103	Practical	Practical	Some points had been added
4.	MAT 201	Integral and Vector Calculus	Integral and Vector Calculus	Syllabus has been updated with the minor changes
5.	MAT 202	Three-Dimensional Geometry	Three-Dimensional Geometry	First Unit is removed and designed syllabus accordingly
6.	MAT 203	Practical	Practical	Some points had been added
7.	MAT 301	Real Analysis	Analysis-I	Syllabus is revised.
8.	MAT 302	Differential Equations	Differential and Difference Equations	First four unit is of differential equation and rest is of difference equations
9.	MAT 303	Practical	Practical	Some points had been added
10.	MAT 401	Mechanics	Mechanics	Unit IV is revised
11.	MAT 402	Numerical Analysis	Numerical Analysis	Unit V is revised
12.	MAT 403	Practical	Practical	Some points had been added
13.	MAT 501	Abstract Algebra	Algebra	Syllabus is revised. With the addition of vector space.
14.	MAT 502	Operations Research	Operations Research	Syllabus is revised with minor changes.
15.	MA 503	Practical	Practical	Some points had been added

16.	MAT 601	Complex Analysis	Complex Analysis	Syllabus is revised.
17.	MAT 602	Metric and vector Space	Analysis-II	Syllabus is revised with the addition of Fourier series.
18.	MAT 603	Practical	Practical	Some points had been added

Revised syllabus of PG program

- After the discussion of UG program, PG program has started according to the team on the same day. Two semesters have been discussed since 3:30 pm.
- The next day i.e. May 6th, 2018, PG program has been started with third semester and fourth semester, here is the list of changes in PG program.

S.No.	Old Paper code	Paper Title	New paper code	New Paper Title	Remarks
1.	MAT 121	Advanced Abstract Algebra	MAT 121	Advanced Algebra	No change
2.	MAT 122	Measure Theory	MAT 122	Measure Theory	No change
3.	MAT 123	Advanced Differential Equations	MAT 123	Advanced Differential Equations	Syllabus revised.
4.	MAT 124	Differential Geometry- I	MAT 124	Differential Geometry- I	Unit III is updated
5.	MAT 125	Dynamics of a Rigid Body	MAT 125	Dynamics of a Rigid Body	Minor changes in Unit I
6.	MAT 126	Seminar	MAT 126	Seminar	No Change
7.	MAT 221	Linear Algebra	MAT 221	Linear Algebra	Minor changes in Unit IV
8.	MAT 222	Topology	MAT 222	Topology	Minor changes in Unit V
9.	MAT 223	Special Functions	MAT 223	Special Functions	Syllabus revised
10.	MAT 224	Differential Geometry-II and Tensors	MAT 224	Differential Geometry-II and Tensors	Change in Unit I
11.	MAT 225	Hydrodynamics	MAT 225	Hydrodynamics	No Change
12.	MAT 226	Seminar	MAT 226	Seminar	No Change
13.	MAT 321	Functional Analysis-I	MAT 321	Functional Analysis-I	No Change
14.	MAT 322	Fluid Dynamics-I	MAT 322	Fluid Dynamics-I	Syllabus revised with minor changes
15.	MAT323A	Mathematical Programming	MAT 323A	Advanced Operations Research-I	New Paper Introduced
16.	MAT323B	Numerical Methods using C	MAT 323B	Computational Methods of Ordinary Differential Equations	New Paper Introduced
17.	MAT323C	Advanced Numerical Analysis	MAT 323C	Magnetohydrodynamics-I	New Paper Introduced



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18.	MAT324A	Integral Transforms	MAT 324A	Integral Transforms	Syllabus revised with minor changes.
19.	MAT324B	Advanced Complex Analysis	MAT 324B	Advanced Complex Analysis	Syllabus revised with major changes.
20.	-	-	MAT 324C	Advanced Real Analysis-I	New Paper Introduced
21.	MAT325A	Relativistic Mechanics	MAT 325A	Relativistic Mechanics	No changes
22.	MAT 325B	Probability and Statistics	MAT 325B	Probability and Statistics	No changes
23.	-	-	MAT 325C	Modules and Rings-I	New Paper Introduced
24.	MAT 326	Synopsis for Dissertation/ Project	MAT 326	Synopsis for Dissertation/ Project	No change
25.	MAT 421	Functional Analysis-II	MAT 421	Functional Analysis-II	No change
26.	MAT 422	Fluid Dynamics-II	MAT 422	Fluid Dynamics-II	Syllabus revised with major changes.
27.	MAT423A	Advanced Operations Research-II	MAT 423A	Advanced Operations Research-II	Syllabus revised with minor changes.
28.	MAT423B	Numerical Methods using MATLAB	MAT 423B	Computational Methods of Partial Differential Equations	New Paper Introduced
29.	MAT423C	Advanced Numerical Methods-II	MAT 423C	Magnetohydrodynamics-II	New Paper Introduced
30.	MAT424A	Integral Equations	MAT 424A	Integral Equations	Syllabus revised with minor changes.
31.	MAT424B	Advanced Complex Analysis	MAT 424B	Advanced Studies of Special Functions and Integral Transforms	Paper changed
32.	-	-	MAT 424C	Advanced Real Analysis-II	New Paper Introduced
33.	MAT425A	General Relativity & Cosmology	MAT 425A	General Relativity & Cosmology	No change
34.	MAT425B	Modeling and Simulation	MAT 425B	Modeling and Simulation	Syllabus revised
35.	-	-	MAT 425C	Modules and Rings-II	New Paper Introduced
36.	MAT426	Dissertation	MAT 426	Dissertation	No change

7. After the discussion of PG program, M.Phil and Ph.D. Programme syllabus have been discussed and designed accordingly since 5:30 pm.

8/5/18

