

Department of Mathematics

The 5th May 2014

Departmental Faculty Board (DFB) discussed the M.Sc. Curriculum Approach paper in its meeting held on 17th April 2014 and 25th April 2014 and resolved the following.

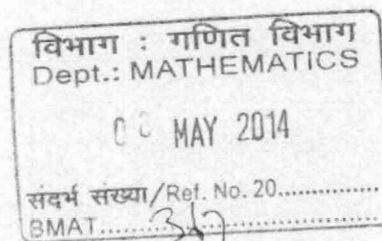
1. DFB agreed on the credit structures as suggested in approach paper ((i) Program Core + elective: 69 (PE minimum 9), (ii) Open Electives (OE): 6); Total 75 credits) and decided to have 51 credits of DE (consisting of 12 courses of 4 credit each and 1 3 credit project) and 18 credits of Program Electives.
2. DFB discussed the Integrated M. Sc. + Ph.D. Programme proposal of the approach paper and agreed in principle for the same. DFB also resolved the following:
 - Students having 8 CGPA in 1st year of M.Sc. will be eligible for Integrated M.Sc. + Ph.D. programme. The intake will be maximum 10 students.
 - The selection of the students will be through some interview conducted by the Department and the allocation of students to supervisors will be done following the existing Ph.D. allocation rules of the Department.
 - The GATE fellowship to these students will be over and above the existing GATE fellowship to the Ph.D. students.
 - There should be an exit option in the programme. The exit option will be applied only after the completion of 3 years and such student will exit with an M. Sc. Degree provided they successfully complete the M.Sc. degree requirement.
3. DFB discussed the M.Sc. with specialization and agreed for the same. DFB also decided that each specialization has to be broad-based and the number of specialization will not be too many. The details of the specializations will be decided in due course in DFB.

B. S. Panda
(B.S. Panda) 5/5/14

HOD, Mathematics

Dean, Academics

Encl. DFB minutes



DFB felt that the above procedures followed by the Department in allocating the Ph.D. students are running smoothly in the Department. The current allocation policy takes into consideration the preference of a Ph.D. student only when two or more supervisors are interested in the candidate. However, if only one supervisor is interested in guiding the student, the preference of the student was not considered. To overcome this, DFB decided that the faculty members will let the HOD know if they are interested in taking Ph.D. students and the area in which the faculty members are interested. The complete list of the faculty members interested to take Ph.D. students along with the areas will be made known to all the Ph.D. applicants just before the interview and the possible guide allocation will be indicated to the Ph.D. applicants during the Ph.D. interview subject to their selection.

4. DFB had a discussion on the Integrated M.Sc. + Ph.D. programme proposal of the Approach Paper of the Institute and agreed on the following.
 - Students having 8 or more CGPA in 1st year of M.Sc. will be eligible for Integrated M.Sc. + Ph.D. programme. The intake will be maximum of 10 students.
 - The selection of the students will be through some interview conducted by the Department and allocation supervisors will be done following the existing Ph.D. allocation rules of the Department.
 - The GATE fellowship to these students should be over and above the number of GATE Ph.D. students of the Department.
 - There should be an exit option in the programme. The exit option will be applied only after the completion of 3 years and such students will exit with an M.Sc. degree provided they successfully complete the M.Sc. degree requirement.
5. DFB discussed the M.Sc. with specialization and decided that each specialization has to be broad-based and the number of specializations will not be too many. The details of the specializations will be decided in due course in DFB.
6. DFB discussed the allocation of projects to the Integrated five year M.Tech. in Mathematics and Computing and resolved that two students will be allowed to do a project jointly depending on the nature of the project and availability of projects in the Department. DFB also authorized the DRC to implement this with immediate effect.

The meeting ended with thanks to the chair.



(Rupam Barman)

DFB Secretary

Minutes circulated on 28/04/2014

cc: (1) All faculty members of the Department of Mathematics.

(2) HOD office, Department of Mathematics.

(3) Dean Academics.

Note: (i) In respect of MA/MSc and/or BTech with 8.0 or above CGPA from IITs, qualification of a national examination is waived off and
(ii) students from CFTIs having CPI 7.00 (at 10.00 scale) at the end of 3rd year of their BTech (CS/Math and Computing) are also eligible with assistantship without qualifying GATE.

• **Part time Candidates**

(a) Qualification as given below:

i. For General and OBC Candidates

60% (or equivalent CGPA) in BSc/BA/BTech (CS/Math and Computing)/
BCA and MSc/MA/MTech (CS/Computer Application/Math and Computing)
or

70% (or equivalent CGPA) in BTech (CS/Math and Computing)

ii. For SC/ST/PH Candidates

55% (or equivalent CGPA) in BSc/BA/BTech (CS/Math and Computing)/
BCA and MSc/MA/MTech (CS/Computer Application/Math and Computing)
or

65% (or equivalent CGPA) in BTech (CS/Math and Computing)

(b) Minimum Two years of experience and in employment in Govt./Research Organizations/ Public Sector/ Private Industries with NOC from the current employer. Applicants not working in the NCR region will have to fulfil the minimum residency requirement of six months in IITD.

3. DFB had a discussion on M.Sc. Curriculum Approach Paper. In the Approach Paper, the proposal for the Credit Structure is as follows:

(i) Programme Core+Elective: 69 (PE minimum 9)

(ii) Open Electives (OE): 6

Total: 75

DFB agreed on the above credit structures and decided that 51 credits consisting of 12 courses (each of 4 credits) and Project part-I (3 credits) to be core courses and remaining 18 credits will be Programme Electives. DFB also decided the core courses ($48 + 3 = 51$ credits) for M.Sc. as follows.

Sl. No.	Name	Course Code	Credit Structure
1	Linear Algebra	MAL 503	3-1-0
2	Real Analysis	MAL 513	3-1-0
3	Algebra	MAL 516	3-1-0
4	Complex Analysis	MAL 514	3-1-0
5	Probability & Statistics	NEW	3-1-0
6	Computer Programming and Data Structures	NEW	3-0-2
7	Ordinary Differential Equations	MAL 517	3-1-0
8	Topology	MAL 601	3-1-0
9	Functional Analysis	MAL 602	3-1-0
10	Linear Programming and extensions	NEW	3-1-0
11	Numerical Analysis	MAL 524	3-1-0
12	Partial Differential Equations	MAL 630	3-1-0
13	Project Part-I	MAD 703	0-0-6

It was decided that there will only be core courses in the first two semesters and Project Part-I will be in the 3rd semester. DFB also in principle agreed to the Integrated M.Sc. + Ph.D. programme proposal as well as the M.Sc. with specialization of the Approach Paper. However, the details will be discussed in the next meeting.

4. DFB had a discussion on issues related to the Ph.D. written comprehensive examination of the Department. DFB deliberated the issues in detail and came up with the following initial proposal. DFB also decided that after receiving the comments from the faculty members on this proposal, the issue will be discussed again in the DFB and a decision will be taken.

Comprehensive Examination Proposal:

Members felt that there is a need to replace the existing procedures in conducting the Ph.D. written comprehensive examination. Members also felt that the written comprehensive examination should be made independent of the course instructor.

- Students will write comprehensive exam on two papers: Paper-I is Linear Algebra and Paper-II is area specific.
- The syllabus of each paper of the comprehensive examination will be finalized by the Department and will be made available to the students.
- DFB/DRC will propose a committee consisting of 3 members for a period of one year to conduct the comprehensive examination of Linear Algebra.
- A committee consisting of 2-3 members will set each question paper (Area Specific).
- The committee for Area Specific paper will be decided either by DFB/DRC/Supervisor.
- Some of the Area Specific papers suggested by the members are:
(i) Numerical Analysis (ii) Differential Equations (iii) Statistics and Operations Research
(iv) Algebra and Number Theory (v) Analysis and Topology (vi) Discrete Mathematics
(vii) Computer Applications.

5. The request of Dr. V. V. K. Srinivas Kumar to relieve him from DRC membership was discussed and DFB decided to relieve him.

The meeting ended with thanks to the chair.

(Rupam Barman)

DFB Secretary

Minutes circulated on 20/04/2014

cc: (1) All faculty members of the Department of Mathematics.

(2) HOD office, Department of Mathematics, (3) Dean Academics.