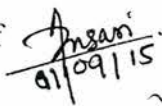
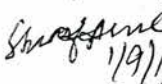

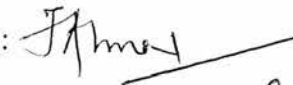



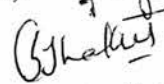
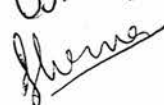

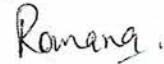





### Attendance of the meeting

An ordinary meeting of the **Committee of Studies** of the Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, N. Delhi, was held on September 1, 2015 (Tuesday) at 3.00 p.m. in the committee room of the CIRBSc. at S. Ramanujan Block. Following members of the Committee attended the meeting.

1. Prof. Zubaida Ansari (Director of the Centre and Chairman of the Committee of Studies):  01/09/15
2. Prof. Sharif Ahmad, JMI. (Internal member and Honorary Adviser to the Centre):  01/09/15
3. Prof. Mohammad Asaduddin (Director, Academics, Jamia Millia Islamia):
4. Prof. M. Sami, JMI. (Internal member):
5. Prof. Rajiv Bhat, JNU. (External member): 
6. Prof. Punit Kaur, AIIMS. (External member):
7. Prof. Faizan Ahmad (Faculty member): 
8. Prof. Shafeeque Ansari (Faculty member): 
9. Prof. Sher Ali (Faculty member):  Sher Ali · 1.9.15
10. Dr. Syed Naqui Kazim (Faculty member): 
11. Dr. Sonu Thakur (Faculty member): 
12. Dr. Shama Parveen (Faculty member): 
13. Dr. Fareeda Athar (Faculty member):
14. Dr. Asimul Islam (Faculty member): 
15. Dr. Romana Ishrat (Faculty member):  Romana
16. Dr. Ravins (Faculty member): 
17. Dr. Imtiyaz Hassan (Faculty member): 
18. Dr. Rajan Patel (Faculty member):  01.09.2015

## Minutes of meeting of the Committee of Studies

An ordinary meeting of the **Committee of Studies** of the Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, N. Delhi, was held at 3.00 pm on September 1, 2015 (Tuesday) in the committee room of CIRBSc. at S. Ramanujan Block.

Following members were present:

- 1 Prof. Zubaida Ansari (Director of the Centre and Chairperson of the Committee of Studies)
- 2 Prof. Sharif Ahmad, JMI. (Internal member and Honorary Adviser to the Centre)
- 3 Prof. Rajiv Bhat, JNU (External member)
- 4 Prof. Faizan Ahmad (Faculty member)
- 5 Prof. Shafeeque Ansari (Faculty member)
- 6 Prof. Sher Ali (Faculty member)
- 7 Dr. Syed Naqui Kazim (Faculty member)
- 8 Dr. Sonu Thakur (Faculty member)
- 9 Dr. Shama Parveen (Faculty member)
- 10 Dr. Asimul Islam (Faculty member)
- 11 Dr. Romana Ishrat (Faculty member)
- 12 Dr. Ravins (Faculty member)
- 13 Dr. Imtaiyaz Hassan (Faculty member)
- 14 Dr. Rajan Patel (Faculty member)

Following members could not attend the meeting due to their prior engagements.

1. Prof. Mohammad Asaduddin (Director, Academics, Jamia Millia Islamia)
2. Prof. M. Sami, JMI (Internal member)
3. Prof. Punit Kaur, AIIMS (External member)
4. Dr. Fareeda Athar (Faculty member)

The chairman welcomed the members of CoS meeting in general and Professor Sher Ali in particular who has recently joined the Centre as a faculty member and attended his 1<sup>st</sup> CoS meeting.

Following agenda items were discussed and resolved:

**Agenda 1.** Confirmation of minutes of the CoS meetings held on 21.4.15 (ordinary meeting), 7.5.2015 (emergent meeting) and 7.7.2015 (emergent meeting).

As there were no comments/suggestions received, the circulated minutes of the CoS meetings held on 21.4.15 (ordinary meeting), 7.5.2015 (emergent meeting) and 7.7.2015 (emergent meeting) were confirmed by the members of the committee.

**Agenda 2.** Approval of the synopsis submitted by the provisionally admitted seven PhD students of the batch 2014-15 and one student of the batch 2013-14, for confirmation of their PhD admissions.

The committee decided to take the request in the next meeting after the Departmental Research Committee (DRC) submit the recommendation, once the students present their research progress in front of DRC.

**Agenda 6.** Approval of modifications within the structure of M.Sc. Biophysics syllabus as per CBCS.

The reshuffling made in the M.Sc. courses to incorporate the CBCS courses were put up in the committee. The committee approved the same.

The committee suggested to remove the assigned course codes given to the CBCS courses offered by the other departments/centers which should be given to the respective department/Center to assign it. The suggested changes were incorporated and the committee approved the modified version of M.Sc Biophysics syllabus as per the Choice Based Credit System (CBCS).

With the addition of CBCS courses, total credit of program of M.Sc Biophysics has become 88 spanning over four semesters (**Annexure 2**).

**Agenda 7.** Approval of UG and PG level courses and syllabi proposed by the Centre to be offered under the CBCS.

The faculty members offered 10 courses for UG and 12 courses for PG under the CBCS. This was passed in departmental meeting in anticipation of CoS and sent to the administration office for the consideration. The matter was reported and the committee agreed and approved the syllabi proposed by the Centre to be offered under the CBCS (**Annexure 3.1 and 3.2**).

**Agenda 8.** Revision of syllabus of Chemistry for M.Phil entrance test.

The committee approved that the syllabus of Chemistry for M.Phil entrance test for the Centre should be revised by the concerned faculty members of the Centre. The same will be submitted to Prof. Imran Ali, Department of Chemistry, Jamia Millia Islamia for suggestions/moderations.

**Agenda 9.** Six monthly progress reports of the PhD students submitted till April 30, 2015.

The reports were before hand examined by the DRC of the Centre.

The CoS approved the six monthly progress reports of the PhD students submitted till April 30, 2015.

The members suggested that PhD students must make presentation of the research progress at least once in a year and asked the director to make the necessary arrangements for the same. The director assigned the task of making roaster of presentation to Professor S. G. Ansari and Dr. M. I. Hassan.

**Agenda 10.** Center's annual conference.


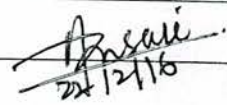


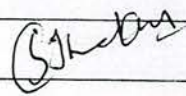
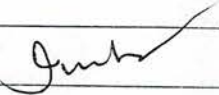
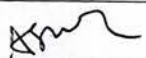
The committee approved to organize the annual conference of the Centre on the theme "**National Conference on Interdisciplinary Approach in Chemical Sciences**"

## LIST OF COURSES OFFERED BEFORE CBCS

S. No	Title of paper	Paper code	Credit*
<b>Semester I</b>			
1.	General Biochemistry	MBP101	4
2.	Computational Biology & Bioinformatics	MBP102	4
3.	Cell and Molecular Biology	MBP103	4
4.	Mathematical and statistical Techniques	MBP104	4
5.	Lab course: Practical	MBP105	4
<b>Semester II</b>			
1.	Structural Biology	MBP201	4
2.	Thermodynamics and Bio-energetics	MBP202	4
3.	Biophysical techniques and Bioinstrumentations	MBP203	4
4.	Quantum Physics & Chemistry	MBP204	4
5.	Lab course: Practical	MBP205	4
<b>Semester III</b>			
1.	Radiation and Medical Biophysics	MBP301	4
2.	Microbiology, Genetics and Immunology	MBP302	4
3.	Membrane Biophysics	MBP303	4
4.	Systems Biology	MBP304	4
5.	Lab course: Practical	MBP305	4
<b>Semester IV</b>			
1.	Nanobiotechnology	MBP401	4
2.	Neurophysics	MBP402	4
3.	Medicinal Chemistry and Drug design	MBP403	4
4.	Dissertation	MBP404	8
5.	Viva – Voce	MBP405	4
<b>Total credit</b>			<b>84</b>

**THE AMENDED LIST OF THE COURSES AS PER CBCS WERE APPROVED IN CoS OF 01.09.2015, IS PROVIDED ON THE NEXT PAGE (page.2) OF THIS DOCUMENT. THE REMAINING COURSE CONTENT i.e. DETAILED SYLLABUS IS SAME AS BEFORE**

22/12/16 (3:30 PM)

S.No.	Name	DELTA	
		Date	Page No.
1	Prof. Shafeeqe A. Ansari, Chairperson		
2	Prof. Sharif Ahmad, Internal Member		—
3	Prof. Rajiv Bhat, External Member		—
4	Prof. Punit Kaur, External Member		—
5	Prof. M. Sami, Internal Member		—
6	Prof. Ansari Zubaid		 22/12/16
7	Prof. Sher Ali		—
8	Prof. Faizan Ahmad		—
9	Dr. Rajan Patel		
10	Dr. Syed Naqvi Kazim		
11	Dr. Sony Chand Thekur		
12	Dr. Fareeda Athar		Fareeda —
13	Dr. Shama Parveen		—
14	Dr. Md. Imtajiz Hassan		
15	Dr. Asimul Islam		

- Agenda items -
- (1) Confirmation of the minutes of the Cos held on Oct 25-27, 2016
  - (2) Credit for M.Sc. Dissertation.
  - (3) Revision of the syllabi for next semester.
  - (4) External experts for Cos.
  - (5) Any other agenda with permission of chair.

### Minutes:

1. Since no objections were received minutes were confirmed and approved.
2. Committee members agreed and approved increase of credit to dissertation of M.Sc. (Sem IV) programme from 4 to 16 credits.
3. A list of students (M.Sc. sem(IV)) is approved for dissertation as per annexure I.

The committee approved the changes in the prospectus for M.Phil subject wise seats and lab fee (Annexure II).

3. Committee approved the syllabi revision of M.Sc. (Sem II) and M.Phil (Sem II) courses (Annexure III).

4. Postponed for the next meeting.
5. Any other agenda:

S.S.V Teaching load was discussed and approved for M.Sc. (Sem II) & M.Phil (Sem II).

Confirmed  
S.S.V

**M. Sc. (Biophysics)**  
**Centre for Interdisciplinary Research in Basic Sciences**  
**Jamia Millia Islamia**

S. No	Title of paper	Paper code	Credit		
			L	T	P
<b>Semester I</b>					
1.	General Biochemistry	MBP101	3	0	1
2.	Computational Biology & Bioinformatics	MBP102	3	0	1
3.	Cell and Molecular Biology	MBP103	3	0	1
4.	Mathematical and statistical Techniques	MBP104	3	1	0
5.*	<b>Choice Based course</b>		4		
<b>Semester II</b>					
1.	Structural Biology	MBP201	3	0	1
2.	Thermodynamics and Kinetics	MBP202	3	0	1
3.	Biophysical Techniques	MBP203	3	0	1
4.	Quantum Physics & Chemistry	MBP204	3	1	0
5.*	<b>Skill Development Course</b>		4		
6.*	<b>Choice Based Course</b>		4		
<b>Semester III</b>					
1.	Radiation and Medical Biophysics	MBP301	3	0	1
2.	Microbiology, Genetics and Immunology	MBP302	3	0	1
3.	Membrane Biophysics	MBP303	3	1	0
4.	Systems Biology	MBP304	3	1	0
5.*	<b>Ability Enhancement Course</b>		4		
6.*	<b>Choice Based Course</b>		4		
<b>Semester IV</b>					
1.	Dissertation and Viva-Voce	MBP401	16		
2.*	<b>Choice Based Course</b>		4		
<b>Total credit</b>			<b>88</b>		

Total Theory classes per course: 48 [1 credit= 1clock hr]

Practical/Tutorial classes per course: 32 [1 credit= 2clock hr]

Total classes per course: -----

80 clock hrs

Dissertation (Extensive Lab Work): 32 [16 credits = 16×2]/ week.

\* Paper code will be given by the concern department from where the CBCS is offered.

## Outline for the Syllabus for M.Phil. in Interdisciplinary Basic Sciences

(32 credits=800 marks)

### Semester I (16 credits = 400 marks)

**1. Research Methodology** (4 credits=100 marks) (MIBS 101)

**Marks and credit distribution for the Paper Research Methodology:** (3 credits, 75 marks = theory classes and final exam (55 marks) and Internal assessment (20 marks); and 1 credit, 25 marks = practical/tutorial classes, final and internal exam.)

**2. Fundamentals of Computing** (4 credits=100 marks) (MIBS 102)

**Marks and credit distribution for the Paper Fundamentals of Computing:** (3 credits, 75 marks = theory classes and final exam (55 marks) and Internal assessment (20 marks); and 1 credit, 25 marks = practical/tutorial classes, final and internal exam.)

**3. Experimental Techniques-I** (4 credits=100 marks) (MIBS 103)

**Marks and credit distribution for the Paper Experimental Techniques-I:** (3 credits, 75 marks = theory classes and final exam (55 marks) and Internal assessment (20 marks); and 1 credit, 25 marks = practical/tutorial classes, final and internal exam.)

**4. Bibliography I** (4 credits=100 marks) (MIBS 104)

### Semester II (16 credits = 400 marks)

**1. Data Analysis Techniques** (4 credits=100marks) (MIBS 201)

**Marks and credit distribution for the Paper Data Analysis Techniques:** (3 credits, 75 marks = theory classes and final exam (55 marks) and Internal assessment (20 marks); and 1 credit, 25 marks = practical/tutorial classes, final and internal exam.)

**2. Bioinformatics** (4 credits=100 marks) (MIBS 202)

**Marks and credit distribution for the Paper Bioinformatics:** (3 credits, 75 marks = theory classes and final exam (55 marks) and Internal assessment (20 marks); and 1 credit, 25 marks = practical/tutorial classes, final and internal exam.)

**3. Experimental Techniques-II** (4 credits=100 marks) (MIBS 203)

**Marks and credit distribution for the Paper Experimental Techniques-II:** (3 credits, 75 marks = theory classes and final exam (55 marks) and Internal assessment (20 marks); and 1 credit, 25 marks = practical/tutorial classes, final and internal exam.)

**4. Bibliography II** (4 credits=100 marks) (MIBS 204)

### Semester III& IV

Dissertation Work



July 11, 2018 (11:00am)

DELTA Page No.  
Date Signature

S.No.

Name.

- | S.No. | Name.  | Signature     |
|-------|--|---------------|
| 1.    | Prof. Shefquee A. Ansari, Director, CIRBS, JME   |               |
| 2.    | Prof. M. Sami, Dean, F/o Natural Sciences, JME   | —             |
| 3.    | Prof. S. Annapoorni, DU.                         | —             |
| 4.    | Prof. Mohammed Zulfequar, D/o Physics, JME       | <br>11/7/2018 |
| 5.    | Prof. Samyudha Gaurinath, JNU                    |               |
| 6.    | Prof. Mohd. Anwar Jainajpuri, Foreign stud. Advi |               |
| 7.    | Prof. Ansari Zubaida, CIRBSc, JME                | —             |
| 8.    | Prof. Sher Ali, CIRBSc, JME                      | —             |
| 9.    | Dr. Rajan Patel, CIRBSc, JME                     |               |
| 10.   | Dr. Syed Nequi Karim, CIRBSc, JME                | —             |
| 11.   | Dr. Sonu Chand Thakur, CIRBSc, JME               |               |
| 12.   | Dr. Fareeda Athar, CIRBSc, JME                   | —             |
| 13.   | Dr. Shama Parveen, CIRBSc, JME                   |               |
| 14.   | Dr. Md. Imteyaz Hassan, CIRBSc, JME              | —             |
| 15.   | Dr. Asimul Islam, CIRBSc, JME                    |               |

- Date \_\_\_\_\_
- Agenda Item - (1) Approval of revised course structure for M.Sc. (Biophysics) for the batch to be admitted for academic year 2018-19.
- (2) Approval of the syllabus for the revised programme structure (Ay 18-19) and the Sem-III of the ongoing batch.
- (3) Approval of time table for the Sem-I & III and Bc. Phd. Program
- (4) M.Phil/PhD related matter. (if any).
- (5) Any other agenda with permission from Chair.

1) The revised course structure for M.Sc. Biophysics batch to be admitted in 2018-19 was discussed in detail and suggestions were made to revise in terms of increasing practical credits. The credit for practical/lab course is revised to 8 credits <sup>for sem-5</sup> of two separate courses. The paper for Bioinformatics & programming has to be merged as single paper. The syllabus for these courses in principle approved for the above changes and chair is authorised to compile the course detail/syllabus accordingly. The total credits for the course will therefore be 26 credits as against 28 credits of earlier course structure. (Annex I)

2) The syllabus for the above courses for revised programme structure are appended with suggested changes. Dr. Ravindra proposed to change the

**Course Structure for M. Sc. (Biophysics) program**

for the batch of the academic year 2018-19.

S. No.	Title of Paper	Paper Code	Credit		
			L	T	P
<b>Semester I (Total 28 Credits)</b>					
1.	<u>Biochemistry</u>	<u>MBP101</u>	4	0	0
2.	<u>Programming and Bioinformatics</u>	<u>MBP102</u>	4	0	0
3.	<u>Cell and Molecular Biology</u>	<u>MBP103</u>	4	0	0
4.	<u>Structural Biology</u>	<u>MBP104</u>	4	0	0
5.	<u>Lab Course-I</u>	<u>MBP105</u>	0	0	4
6.	<u>Lab Course-II</u>	<u>MBP106</u>	0	0	4
7.	<u>Basics of Mathematics (CBCS)</u>	<u>MBP107</u>	4	0	0
<b>Semester II (Total 24 Credits)</b>					
1.	<u>Thermodynamics and Kinetics</u>	<u>MBP201</u>	4	0	0
2.	<u>Radiation Biophysics</u>	<u>MBP202</u>	4	0	0
3.	<u>Mathematical and Bio-Statistical Techniques</u>	<u>MBP203</u>	4	0	0
4.	<u>Lab Course III</u>	<u>MBP204</u>	0	0	4
5.	<u>Microbiology and Immunology (CBCS)</u>	<u>MBP205</u>	4	0	0
6.	<u>Numerical Methods and Programming (Skill Development)</u>	<u>PGSD201</u>	2	0	2
<b>Semester III (Total 28 Credits)</b>					
1.	<u>Membrane Biophysics</u>	<u>MBP301</u>	4	0	0
2.	<u>Quantum Physics and Chemistry</u>	<u>MBP302</u>	4	0	0
3.	<u>Biophysical Techniques</u>	<u>MBP303</u>	4	0	0
4.	<u>Genetics and Recombinant DNA Techniques</u>	<u>MBP304</u>	4	0	0
5.	<u>Lab Course IV</u>	<u>MBP305</u>	0	0	2
6.	<u>Enzymology (CBCS)</u>	<u>MBP306</u>	4	0	0
7.	<u>Measurement and Data Presentation (Ability Enhancement)</u>	<u>PGAE301</u>	4	0	0
<b>Semester IV (Total 16 Credits)</b>					
1.	<u>Project Work</u>	<u>MBP401</u>	0	0	12
2.	<u>Pharmacology and Toxicology (CBCS)</u>	<u>MBP402</u>	4	0	0
<b>Total Credit</b>			<b>96</b>		