

**Minutes of 5<sup>th</sup> Board of Studies meeting in Physics, School of Sciences, Islamic University of Science and Technology, (IUST) Awantipora.**

The meeting of 5<sup>th</sup> Board of Studies (BoS) of the Department of Physics, School of Sciences, IUST Awantipora, was held on 4<sup>th</sup> March, 2024 in the Board Room, Academic Block VII, Islamic University of Science and Technology, Awantipora.

**The following members attended the meeting:**

**External members**

1. Prof. Mohd. Farooq Mir  
Department of Physics,  
University of Kashmir, Srinagar.
2. Prof. Manzoor Ahmad Malik  
Department of Physics,  
University of Kashmir, Srinagar.
3. Prof. Ravishankar V  
Department of Physics,  
IIT Delhi.
4. Prof. Seemin Rubab  
Department of Physics, NIT Srinagar.
5. Prof. Fozia S. Qazi  
Former Head, Department of Mathematical Sciences, IUST

**Internal members**

1. Dr. Aabid H. Shalla  
I/C Dean School of Sciences (Chairman)
2. Prof. Sheikh Javid Ahmed  
Dean Research (Special Invitee)
3. Dr. Niyaz Ahmad Rather.  
I/C Head Department of Physics (Convener)
4. Dr. Mir Hashim Rasool.  
Assistant Professor (Member Secretary)
5. Dr. Farooq Hussain Bhat.  
Sr. Assistant Professor (Member)
6. Saliha Tak (Student Representative)
7. Suhail Arshad (Student Representative)

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*Saliha Tak*

*Muzaf*

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*V. Ravishankar*

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*Suhail*

*Rubab*



**Co-opted Members within the department:**

- |                          |                     |
|--------------------------|---------------------|
| 1. Dr Bari Maqbool       | Assistant Professor |
| 2. Dr Mandeep Singh      | Assistant Professor |
| 3. Dr Tanveer Ahmad Dar  | Assistant Professor |
| 4. Dr Sheikh Jehangir    | Assistant Professor |
| 5. Dr Parvaiz Ahmad Khan | Assistant Professor |
| 6. Dr Shabir Ahmad Kumar | Assistant Professor |
| 7. Dr Imtiyaz Ahmad Bhat | Assistant Professor |

**Co-opted Members from the other departments:**

1. Head, Department of Computer Science, IUST or her nominee
2. Head, Department of Mathematical Sciences, IUST or his nominee
3. Head Department of Mathematical Sciences (Statistics) , IUST or his nominee
4. I/C Head, Department of International Relations, IUST or his nominee
5. I/C Head, Department of Journalism & Mass Communication, IUST or his nominee
6. I/C Head, Department of Chemistry, IUST or his nominee

***Agenda for the Board of Studies Meeting***

- 1 To formulate the course structure for the Four Year Integrated Under Graduate Programme (FYUGP) in Physics and vet the Syllabus for the first four semester of FYUGP as per the NEP-2020.
- 2 To update the existing syllabi of M.Sc. Physics programme.
- 3 To consider the introduction of new courses in the syllabi of M.Sc. Physics programme as per NEP-2020 guidelines.
- 4 To discuss the syllabi of newly proposed courses in M.Sc. Physics Program and new Open Elective courses to be offered by the department. The courses are as follows:

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1	Discipline Centric Elective Course (E)	PHY506E	Thermal Physics
2	Discipline Centric Elective Course (E)	PHY558E	Atmospheric Physics
3	Discipline Centric Elective Course (E)	PHY609E	Python for Physics
4	Core Course (C)	PHY651C	Materials Science
5	Discipline Centric Elective Course (E)	PHY655E	Quantum Electrodynamics
6	Discipline Centric Elective Course (E)	PHY659E	Quantum Computation

Open Elective Courses:

1	Open Elective Course	PHYOE003	Physics of Household Electrical Appliances
2	Open Elective Course	PHYOE004	Physics of Medical Diagnostic Equipments
3	Open Elective Course	PHYOE053	Physics in Daily Use
4	Open Elective Course	PHYOE054	Physics of Sports

- 5 To consider the introduction of a research project in M.Sc. Physics programme from Semester III.
- 6 To consider the introduction of a national level subject tour in the M.Sc. Physics Programme.
- 7 Integration of Online Courses from Swayam-MOOCs or NPTEL into M.Sc. Program: Students will have the option to enroll in any of the currently available courses of their choice from Swayam-MOOCs or NPTEL. These courses should not overlap with those already incorporated into their M.Sc. syllabi by the department. The selected course must

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run for a minimum duration of 8 weeks. Upon completion, the course will be documented in the students' marks sheet.

- 8 Students taking internships shall be given extra credits and may be allowed to appear in the special end term examination in case the student was not available in the department at the time of regular end term examination.

### Resolution

1. The Department of Physics has undertaken a comprehensive review of the proposed course structure and the syllabi proposed for the first four semesters of the Four Year Integrated Undergraduate Programme (FYUGP) in Physics to bring it in line with the principles and guidelines laid out in the NEP-2020. The external expert members of the BOS meeting appreciated the proposed course structure and syllabus for the first four semesters of FYUGP in Physics for having been meticulously crafted to integrate interdisciplinary perspectives, promote research-oriented learning, and enhance employability skills among students. After thorough discussion, the following was decided:

- (i) The reshuffling of courses among different semesters, particularly the courses offered by the DOCS.
- (ii) Initially the Intake capacity must be only 20 to 25 students.
- (iii) The proposed semester fee should be decreased to Rs. 17,000 per semester in order to attract students for the program, as similar program is offered by Central University Kashmir and Cluster University Kashmir at minimal fee. The fee needs to be approved by competent authority.
- (iv) The course objective and course outcome for all the courses to be incorporated into the syllabi.

2. The recommendations from members of the Board of Studies (BOS) for the M.Sc. Physics syllabi were implemented and the syllabi were subsequently revised. Additionally, new courses outlined in the agenda were endorsed by the BOS members, with their syllabi thoroughly deliberated and approved. The courses include:

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1	Discipline Centric Elective Course (E)	PHY506E	Thermal Physics
2	Discipline Centric Elective Course (E)	PHY558E	Atmospheric Physics
3	Discipline Centric Elective Course (E)	PHY609E	Python for Physics
4	Core Course (C)	PHY651C	Materials Science
5	Discipline Centric Elective Course (E)	PHY655E	Quantum Electrodynamics
6	Discipline Centric Elective Course (E)	PHY659E	Quantum Computation

Open Elective Courses:

1	Open Elective Course	PHYOE003	Physics of Household Electrical Appliances
2	Open Elective Course	PHYOE004	Physics of Medical Diagnostic Equipments
3	Open Elective Course	PHYOE053	Physics in Daily Use
4	Open Elective Course	PHYOE054	Physics of Sports

The overall changes that have been made in the syllabus of M.Sc. Physics programme amounts to about 30%.

3. The BOS members have approved the consideration of research projects starting from semester III, with several stipulations. These include implementing a mid-term assessment of the project's progress during semester III. Additionally, at the semester's end, students are required to present their work to the Department Academic Committee for final evaluation. Only upon approval from the committee members can the project continue in semester IV. In case of underperformance by the student, the committee may grant a maximum extension of one month to improve. In case, the student does not perform satisfactorily even after the end of extension, the student must register regular 4 credit course in his/her 4<sup>th</sup> semester.

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Salika Talwar

Prof. H. H.

Dr. R. Ravi

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4. Participation in national-level subject tours for the M.Sc. course should be optional, contingent upon the availability of funds from the university.

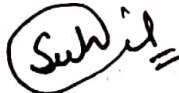
5. Participation in online courses from Swayam-MOOCs or NPTEL should be optional. Successful completion of such courses should be documented on the student's final academic marks sheet. Approval from the competent authority must be obtained for the same.

6. The members of the Board of Studies recommended that the department should communicate with the Dean of Academic Affairs in exceptional cases where a student undertakes an internship during the semester or concurrent with the end-of-term examinations, seeking permission for the student to participate in a special end-of-term examination.

Attached to the minutes of meeting are copies of the revised syllabi for both M.Sc. Physics and Four Year Integrated Undergraduate Programme (FYUGP).



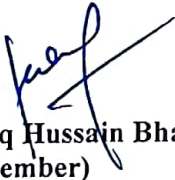
Saliha Talk  
(Student Representative)



Suhail Arshad  
(Student Representative)



Dr. Mir Hashim Rasool  
(Member Secretary)



Dr. Farooq Hussain Bhat  
(Member)



Dr. Niyaz Ahmad Rather  
(I/C Head/ Convener)



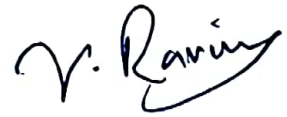
Prof. Sheikh Javid Ahmed  
(Special Invitee)



Prof. Fozia S. Qazi  
(External Member)



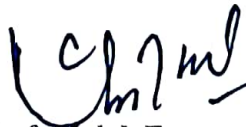
Prof. Seemin Rubab  
(External Member)



Prof. Ravishankar V  
(External Member)



Prof. Manzoor Ahmad Malik  
(External Member)



Prof. Mohd. Farooq Mir  
(External Member)



Dr. Aabid H. Shalla  
(Chairman)