

Ramniranjan Jhunjhunwala College (Autonomous)

Ghatkopar, Mumbai 400086

Department of Physics**Minutes of BOS Meeting**

A meeting of members of BOS in Physics was held on Saturday, 20th Feb 2021 at 3.00 pm online on Zoom platform.

Members of the Board of Studies:

#	Category	Name of the Members
1.	Head of the Department (Chairperson)	Prof. Ratna Jadhav
2.	All Faculty Members of the Physics Dept.	1. Prof. Sunita Maratt
		2. Dr. Neeta B. Srivastava
		3. Dr. Devraj Pawar
		4. Dr. Kiran Kolwankar
		5. Prof. Sandip Hinge
		6. Dr. Vaishali Raikwar
		7. Prof. Ashish Yadav
		8. Mr. Jagdish Hande
		9. Ms. Rani Shaikh
		10. Mr. Adwait Kulkarni
3.	Two Subject Experts from Outside the Parent University (Nominated by the Academic Council)	1. Dr. Aditya Dharmadhikari Tata Institute of Fundamental Research, Mumbai
		2. Mr. Shirish Pathare Homi Bhabha Centre for Science Education, (TIFR), Mumbai
4.	One Expert Nominated by the Vice Chancellor from a Panel of Six Recommended by the College Principal	Dr. Shyamla Bodhane Associate Professor, Dept. of Physics St. Xavier's College, Mumbai
5.	One Representative from Industry / Corporate Sector Allied Area Relating to the Placement	Dr. Ajay Nandgaonkar Chief Technology Officer, Energy & Resources, TCS, Pune
6.	One Postgraduate Illustrious Alumni Nominated by the Principal	Dr. Bharati Kakad Associate Professor, Indian Institute of Geomagnetism, Navi Mumbai

All the members attended the meeting except Mr. Jagdish Hande, who took leave of absence.

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Agenda:

- Minutes of the last meeting.
- Syllabus: No change proposed.
- Department Updates.
- Credit points to be changed from 120 to 132.

Following business was transacted:

1. The meeting started with the introduction and welcome by Prof Ratna Jadhav, HOD – Physics Dept. & Chairperson – BOS
2. Prof. Ratna Jadhav read the minutes of the last BOS meeting.
3. Syllabus:

Since there is no improvement in the pandemic situation; in consultation with the dept. colleagues and the Principal no change in the UG and PG syllabus was proposed; and since all the changes suggested earlier by the members were already incorporated in the syllabus. Hence, due to the current situation of Covid-19, it was decided to continue with the existing syllabus for the next year; and was accepted by the BOS members.

Prof. Ratna Jadhav, appreciated and thanked for the efforts taken by Dr. Bharati Kakad and her colleague Dr. Anand for making the draft syllabus for Geophysics (S.Y. BSc. Paper III, Unit III) at the instance of previous head of the dept. and stated that the said draft will be retained by the dept. for use in the future.

4. Department Updates:

Prof. Ratna Jadhav updated members about the department activities:

Continuous evaluation, multiple modes of evaluations were used for regular students. To overcome the difficulties posed by the pandemic, department conducted online practicals for UG as well as for PG. Various techniques such as Multisim software, Amrita University virtual labs, and for some experiments, videos were also prepared. As per the directives from the University and the government, the college was to start offline practicals for final year students from 15 Feb 2021. The Dept. has made the labs ready for the offline practicals to start anytime; however due to revised directives from the govt. the decision has been differed till further notice. PG exams were conducted by combination of offline-online mode for theory as well as practicals. Now, EC has asked to conduct exams of all PG courses – theory as well as practicals by offline mode only.

Exam Results: The exam results for the last academic year for TY BSc and MSc were 100% and were shared with the members.

Dr Kiran Kolwankar gave more updates about PG course and also updated about the reading project given to TY BSc students from Resonance Journal of Science to give them the exposure of pedagogical articles.

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5. UG Coursework credit points:

From the next academic year, it is proposed to increase the credits from existing 120 points to 132 points. Prof. Ratna Jadhav briefed the members about this change and the courses the students will have to take up to earn these extra credits and requested members to give their suggestions and ideas in this regard. She also opined that at FY level soft skills-based courses can be introduced which could be common across streams, at SY level discipline specific electives and at TY level core subject ability enhancement courses can be introduced.

After detailed discussion members' inputs were as follows:

Dr. Bharati Kakad suggested that courses like communication skills and personality development can be considered for the extra credits if not there already.

Dr Shyamla Bodhane talked about the extra credits system their College follows. Some courses are compulsory and common to all, e.g., for 1st semester of FY and SY there is a special course: 'Giving Voice to Values' that is creative course common for Arts as well as Science. Similarly, for 2nd semester of FY and SY there is course in Environmental Studies.

At 3rd semester there is a common course called Human Rights, for 4th semester there is something called 'Cross Faculty Course', where every science department is supposed to offer a course for Arts stream and Arts dept to offer a course for science stream. There is a 'Scientific Communication Skills' course offered at 3rd and 4th semester for science students. In all 4 semesters whatever projects students have done they are supposed to choose one to make a video of the same as part of Scientific communication skills project. For 5th and 6th semester they don't have anything else apart from core subject. Apart from these credits the students also have to get their credits for social service. At the FY level the students are taught how to communicate in English (particularly focused at vernacular students) and in SY level they are taught about communicating science in a proper way.

Dr. Aditya Dharmadhikari appreciated the work done by the department and teachers during the pandemic period despite all restrictions. He also appreciated the students excelling with 100 % result despite the situation they are facing in the trying times. He also referred to the lecture in TIFR by Prof. U R Rao, the chairperson of the new education policy before it was tabled in the parliament. According to him the students should have a freedom to choose a course of their liking, e.g. Writing, personality development, public speaking etc. The emphasis should be to make inter-disciplinary courses available along with the soft skills courses.

Dr Ajay Nandgaonkar seconded Dr Dharmadhikari's view and added that for such courses flexible timetable should be made available so that if a science student wants to learn poetry or typography, he should be able to do it. For science students core soft skills such as the ability to write well and to speak; or course like 'Scientific Communication Skills' will be of great help. He also suggested that at TY level students should give two seminars per year in the topic of their choice. At FY level common courses could be offered with the help of outside agency, like film

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making, illustrate a story, presentation, learning music, a short course on literature, appreciation of Indian classical music etc. A course like 'how to manage your money' also can be useful as a common course. A course in Design Thinking will also help students to be in line with emerging trends.

Mr. Shirish Pathare appreciated 'PhysiTech'- the dept. annual festival. He suggested that some kind of exposure to Statistical methods for science students will be helpful.

Prof Sunita Maratt suggested that at FY level mandatory value-based education like visits to old age homes, similar NGOs and slums can be incorporated. Dr Kiran Kolwankar suggested that advanced problem solving can be introduced as optional activity at department level.

Dr Dharmadhikari and other guest BOS members congratulated the department for successfully managing the academic year despite all the issues posed by the pandemic.

The meeting ended with the vote of thanks by HOD, Prof Ratna Jadhav who thanked all the members for actively participating and giving their valuable inputs and insights.