

S.P. Mandali's
RAMNARAIN RUIA AUTONOMOUS COLLEGE
DEPARTMENT OF PHYSICS

30/09/2022

BOS MEETING (Hybrid mode)

(01:00PM – 03:00PM)

- Welcome address by Prof. Vijay Mayekar, HOD.
- Introduction of BOS Members

BoS Members:

Sr. No.	Name	Designation
1.	Dr. Vijay Mayekar	Professor and Head of the Department
2.	Dr. Rajendra Rathi	Assistant Professor
3.	Dr. Pratap Patil	Professor (On lien)
4.	Prof. Nana Pradhan	Professor
5.	Mr. Bhupesh Mude	Associate Professor
6.	Mr. Onkar Ramdasi	Assistant Professor
7.	Mrs. Rajrajeshwari Nethi	Assistant Professor
8.	Mr. Devendra Chavan	Assistant Professor (M.Sc. – Coordinator)
9.	Ms. Mayuri Sawant	Assistant Professor (M.Sc. – Coordinator)
10.	Dr. Vinita Dhulia	In charge Principal, Head, Department of Physics, NES Ratnam College, Mumbai
11.	Dr. Neetu Jha	UGC-Assistant Professor, ICT Mumbai
12.	Dr. Nilesh Wagholikar	Head, Department of Physics, S.P. College, Pune
13.	Dr. L.B Tiwari	Senior Manager, R and D technical services, Pidilite Industries
14.	Dr. Vinita Navalkar	Reviewer, Journal of Visualized Experiments (JoVE)

Agenda No. 1A – UG Program Modalities of assessment- Internal and semester end examination and the assessment of Semester End examinations (Theory/Practical)

Discussed that:

Dr. Bhupesh Mude presented - Paper-Pattern of the semester end examination for FYBSc, SYBSc and TYBSc.

Resolved that:

No changes were made.





Agenda No. 1B – PG Program-- Modalities of assessment- Internal and semester end examination and the assessment of Semester End examinations (Theory/Practical)

Discussed that:

Mr. Devendra Chavan presented the 60:40 pattern, the internal marking system and the semester end examination for MSc part I and II.

MSc, I course has a total of 650 marks (450 theory + 200 practical)

MSc II course has a total of 600 marks (200 theory + 200 Project)

MSc I and MSc II have different syllabus this year as per the discussion done in the previous BOS meeting (March 2022)

Resolved that:

No changes were made,

Agenda No. 2 – Eligibility for the admission to Post Graduate programmes

Discussed that:

Based on Entrance examination merit list with due consideration to seat-reservation as per government regulation. The entrance paper is of 100 marks.

This academic year (2022-23) is the first year when the entrance exam was conducted.

Agenda 3 –Certificate courses

Discussed that:

Following are the recommended Certificate courses on SWAYAM/NPTEL/MOOC platform.

Sr. No.	Class	Course Description and Institute
1	TYBSc.	Introduction to Atmospheric Space Sciences through Swayam – Prof. M.V. Sunil Krishna, IIT Roorke.
2	TYBSc.	Introduction to Photonics-M.Sc. Photonics – Manipal University – Prof. Balaji Srinivasan, IIT Madras
3	SYBSc.	Quantum Mechanics, IIT Bombay



4	B.Sc.	Experimental Physics – I, II,III – Prof. Amal Kumar Das, IIT Kharagpur
5	TYBSc., M.Sc.	Physics of Biological Systems – Prof. Mithun Mitra
6	M.Sc.	Optical Sensors – Prof. Sachin Srivastava, IIT Roorke

Dr. Tiwari suggested that the department can start a certificate course on Colour Physics, as colour science is applicable everywhere, and the students can get better opportunities.

Department colleagues accepted this suggestion and HoD said in due course of time it could be designed after detailed discussion with Dr. Tiwari

Resolved that:

The department accepted suggestion of Dr. Tiwari from Pidilite industry on designing certificate course on Colour Physics.

Agenda Item No. 4–

To seek suggestions for the implementation of NEP2020 with reference to the inclusion of the following features

i) Four Year Undergraduate Program

The higher education colleges will shift towards multidisciplinary education with flexibility in entry and exit. The complete under graduation will be of 3-4 years.

a) Under graduation:

- i) Certificate- exit after 1 year.
- ii) Diploma- exit after 2 years.
- iii) Bachelor's degree- after 3 years completion
- iv) 4th year will be a preferred option for those who want to have a complete holistic education along with the chosen minor and major subjects.

b) Post-graduation:

- i) Those with a 3-year bachelor's degree will have 2 years of Master's with 2nd year devoted to research.
- ii) 4-year bachelor's degree with research could have 1 year of Masters.
- iii) An integrated Bachelor's/Master's degree of 5 years might be an option.



Input from the BOS members:

- Dr. Vinita Dhulia – Vision is good. If a student chose to exit at diploma, he/she should be given the proper base so that industry can absorb.



- Dr. Nana Pradhan – A student should have a choice to enter and exit at any point of time, and gap between the years must not be considered.
- Dr. Rajendra Rathi – The core subjects like Physics, Chemistry, Biology and Mathematics will not be able to offer proper industry-based training.
- Dr. Nilesh Wagholikar – We should follow UGC guidelines while designing the courses, but 40% of the course credit given by NEP2020 is to the subjects to Sanskrit, Ancient History, etc. making the course very generalized or diluting the science courses. As credits are less, workload will reduce and there will be employment problem.

ii) **Multidisciplinary/Trans-disciplinary approach**

- It is a good approach. TYBSc students' study 4 papers each semester. Instead, they will have a choice to choose other papers too.

iii) **Industry academia collaborations**

- Dr. Tiwari – If we fulfil the requirements of the industry, physics-subject students would also be absorbed in the industries. Applied courses like chemical physics can be introduced.
- Dr. Mayekar- BE electronics students, who are preferred over MSc physics (Electronics) students in electronics industry.
- Dr. Neetu Jha – Industries which are related to physics may be approached, Industries in Bangalore are working in Vacuum pumps, which is a field related to physics, and courses may be designed in that manner.

Conclusion:

- We have to re-design the syllabus, so that it is more practical oriented.
- Programming, and computational courses must be included.
- Quantum mechanics, Classical mechanics, and other core subjects can be kept optional, and the optional courses like optical sensors, material science, etc to be provide to students.

Agenda Item No. 5 with permission from Chair.

Communication -UG Lab was under repair for 6 weeks, so few SYBSc Practical would be conducted in Diwali vacation period form 1st November to 5th November 2022.

Vote of Thanks by Prof. Vijay Mayekar, Head of the Department

Vijay Mayekar

Prof. (Dr.) Vijay Mayekar



Head of the department
Department of Physics



S.P. Mandali's
RAMNARAIN RUIA AUTONOMOUS COLLEGE
DEPARTMENT OF PHYSICS

13/04/2023

BOS MEETING (Online mode)

(07:00PM – 08:00PM)

- Welcome address by Prof. (Dr.) Vijay Mayekar, HOD.
- Introduction to BOS Members by Prof. (Dr.) Vijay Mayekar, HOD.

BoS Members:

Sr. No.	Name	Designation
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Dr. L.B Tiwari was absent .

Agenda No. 1 – To seek approval for change in no. of credits to be awarded for UG from 132 to 120

Discussed that:

Prof. (Dr.) Vijay Mayekar put forward restoring credits to 120 for the current FYBSc batch(2022-23), whose credits were increased to 132 in last year BoS (April 2022).. Since in forthcoming NEP, credit pattern will be different, so college do not want to keep this year FYBSc batch to be only batch with 132 credits. we are restoring 120 credits for the current FYBSc batch.

Dr. Nilesh Waghlikar said that the credit structure approved by the government for NEP is minimum 120 & maximum 132 for 3-year course, while for the four year



course, minimum credit to be awarded can be 160 and maximum credits shall be 172.

Resolved that:

The credits for FYBSc (A.Y. 2022-23) will now be 120.

Agenda No. 2 – To seek approval for changes in SY, TY ad MSc Syllabus

Discussed that:

Prof. (Dr.) Vijay Mayekar talked about the current syllabus, mentioning No changes in the current Syllabus.

Resolved that:

No changes in the current Syllabus.

Agenda No. 3 – To seek approval for Swayam courses, identified by the department

Discussed that:

Swayam courses have been identified by the department for the Academic year 2023-24.

Resolved that:

List of the Swayam courses have been identified by the department for the Academic year 2023-24.

Agenda 4 – Any other matter with the permission of the chair

Discussed that:

Prof (Dr.) Vijay Mayekar discussed the problems faced by the FYBSc students post lockdown in writing the final exam theory papers, and the number of students registered for ATKT examinations has increased.

Input from the BOS members:

- **Dr. Nilesh Waghlikar** suggested that the internal papers should also have theory questions instead of MCQs and True/False type questions, it will be easier for the students to crack the end semester theory examinations.
- **Dr. Vinita Dhulia** said that the same problem is faced in her college too (Ratnam college), and the number of cases in Unfair means is also rising.
- **Dr. Neetu Jha** said that the percentage of students failing is low at her institution, but her experience was that their First-Year students do not want to solve any numerical.



- **Prof (Dr.) Nana Pradhan** suggested that students have started writing stories in the theory paper.
- **Prof. (Dr.) Vijay Mayekar** mentioned efforts taken by department colleagues of mentoring and conducting remedial lectures for the FYBSc- ATKT students. This has reduced substantially the number of cases in FYBSc-ATKT papers (Physics) in the second round of ATKT examinations.

Vote of Thanks- Meeting concluded with Vote of Thanks by
Prof. (Dr.) Vijay Mayekar, Head of the Department.

Vijay Mayekar

**Prof. (Dr.) Vijay Mayekar,
Head, Department of Physics**



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