GOA UNIVERSITY
DEPARTMENT OF PHYSICS
Form A-7
(See OA-14 of Part A)

**Minutes of the BOS in Physics meetings held on 2nd July 2020**

**BOS committee members remain present for the meeting:**

1. Prof. K. R. Priolkar (Chairman, Dept. of Physics, Goa University)
2. Dr. Bholanath Pahari (Dept. of Physics, Goa University)
3. Dr. Sudhir Cherukulappurath (Dept. of Physics, Goa University)
4. Dr. Jaison Joseph (Govt. College of Arts, Sciences and Commerce, Khandola, Goa)
5. Dr. Shirish Kamat (Govt. College of Arts, Sciences and Commerce, Quepem, Goa)
6. Ms. Mandakini G. S. Kudaiker (PES College, Ponda, Goa)
7. Prof. P. R. Sarode (Goa)
8. Prof. P. B. Vidyasagar (Savitribai Phule Pune University, Pune)
9. Prof. Balaji Prakash (CSIR-CFTRI, Mysore)
10. Prof. Umesh Waghmare (JNCASR, Bengaluru)
11. Prof. Mukul Laad (IMSc, Chennai)

**BOS committee members requested for leave of absence for the meeting**

1. Prof. Satishchandra B. Ogale, (IISER, Pune)
2. Mr. Sanjay Jahagirdar (Govt. College of Arts, Sciences and Commerce, Sanquelim, Goa)

**Special Invitees who attended:**

1. Prof. Ramesh V. Pai (Goa University)
2. Dr. Rajesh Kumar Hyam (Goa University)
3. Dr. Venkatesha Hathwar (Goa University)
4. Dr. Reshma Raut Dessai (Goa University)
5. Dr. Pranav Naik (Goa University)

**Agenda items for the meetings:**

1. Discussion and Approval of Course structure and syllabus of M.Sc. Physics with specialization in Biophysics, Computational Physics and Solid State Physics
2. Any other matter with the permission of the Chair.

**Part-A**

1. Recommendations regarding courses of study in the subject or group of subjects at the Under-graduate level.

   NIL

2. Recommendations regarding courses of study in the subject or group of subjects at the Post-graduate level.

Members discussed and approved the course structure and syllabus of the listed courses for M.Sc. Physics with specializations in Biophysics, Computational Physics and Solid State Physics. The members also recommended that syllabi for special optional courses in semester IV for Biophysics and Computational Physics may be framed after the faculty members for these specialization are appointed. The approved course structure and the syllabus is given as Annexure I.

**Part-B**

(i) Scheme of examinations at the under-graduate level
Non-agenda item

(ii) Scheme of examinations at the post-graduate level
Non-agenda item.

(iii) Panel of examiners for different examinations at undergraduate level
Non-agenda item

(iv) Panel of examiners for different examinations at post-graduate level
Non-agenda item

**Part-C**

(i) Recommendations regarding preparation and publication of selection of reading material in any subject or group of subject and names of persons recommended for appointment to make the selection.

Non-agenda item.

**Part-D**

Recommendations regarding general academic requirements in the Department of University or affiliated Colleges.

Non-agenda item.

**Part-E**

(i) Recommendations of text books for the courses of study at the under-graduate level.

Non-agenda item.

(ii) Recommendations of text books for the courses of study at the post-graduate level.
Non-agenda item

**Part-F**

(i) The declaration by the Chairman that the minutes were read out by the Chairman at the meeting itself.

Date: 2nd July 2020

Signature of the Chairman

Place: Goa University

**Part-G**
Remarks of the Dean

(i) The minutes are in order
(ii) May be recommended for approval of Academic Council
(iii) Special remarks if any

Date: 06/07/2020.

Place: Goa University

Signature of the Dean

Dean
Faculty of Natural Science
Goa University
Goa

**Extract of the Minutes of Academic Council Meeting held on 23rd,24th & 27th July 2020.**

**3.1 Minutes of the BoS in Physics meeting held on 02.07.2020.**

The Academic Council approved the minutes of the Board of Studies in Physics meeting held on 02.07.2020.

The House congratulated the Chairperson and Members of the BoS for proposing the specialisations of Biophysics, Computational Physics and Solid State Physics.

The Head of the Department was requested to explore the possibility of offering the specialisation of Solid Physics and Computational Physics for students admitted during the Academic Year 2020-21.

Appendix I

## Course Structure and List of papers

| Semester I | | |
|---|---|---|
| Course Code | Course Title | Number of credits |
| PHGC-100* | Bridge course in Mathematical Methods | 2 |
| PHGC-101 | Mathematical Physics | 4 |
| PHGC-102 | Classical Mechanics | 4 |
| PHGC-103 | Electromagnetic Theory | 4 |
| | Optional courses (any two) | |
| PHGO-110 | Computer Programming in Fortran 95 | 2 |
| PHGO-111 | Computer Programming with C | 2 |
| PHGO-112 | Electronics Practical | 2 |
| PHGO-113 | Mini project | 2 |
| *Not included for the calculation of GPA, but should be completed successfully. | | |
| **Semester II** | | |
| Course Code | Course Title | Number of credits |
| PHGC-106 | Quantum Mechanics | 4 |
| PHGC-107 | Electronics | 4 |
| PHGC-108 | Statistical Mechanics | 4 |
| | Optional courses (any one) | |
| PHGO-119 | General Physics Practical | 4 |
| PHGO-120 | Methods of Experimental Physics | 4 |
| | | |
| **Semester III** | | |
| Course Code | Course Title | Number of credits |
| PHGO-301 | Summer Fellowships | 2 |
| | **Solid State Physics** | |
| PHSC-201 | Structure, Lattice and Thermal Properties of Solids | 3 |
| PHSC-202 | Band Theory and Electronic Properties of Solids | 3 |
| PHSC-203 | Magnetic, Superconducting and Optical Properties of Solids | 2 |
| | Optional courses (any two) | |
| PHGO-212 | Nuclear physics and Elementary Particle Physics | 4 |
| PHGO-213 | Laser Physics and its applications | 4 |
| PHSO-214 | Solid State Physics Practical | 4 |
| | **Computational Physics** | |
| PHCC-221 | Advanced Quantum Mechanics | 3 |
| PHCC-222 | Advanced Statistical Mechanics | 3 |
| PHCC-223 | Numerical Techniques | 2 |
| | Optional courses (any two) | |
| PHGO-212 | Nuclear and Elementary Particle Physics | 4 |
| PHGO-213 | Laser Physics and its applications | 4 |
| PHCO-234 | Numerical Techniques Practical | 4 |