

## DEPARTMENT OF PHYSICS

### Minutes of the meeting of board of studies (2015-2016)

Minutes of the meeting of the board of studies in PHYSICS held on (15.04.2015) at 02.00 PM

Members present :

1. Dr. K. Viswanathan (Chairman)
2. Dr. V. Senthilkumar (Member)
3. Dr. B. Janarthanan (Member)
4. Mrs. Ambili Vipin (Member)
5. Ms. A. Sahana Fathima (Member)
6. Dr. S. Arumugam (External Member)
7. Mrs. B. Gomathi (External Member)

The chairperson welcomed the members of the board. The board carefully sanitized the draft syllabus/syllabi of the following programs.

1. B.Sc PHYSICS
2. M.Sc PHYSICS
3. M.Phil & Ph.D

and following Courses

4. ALLIED PHYSICS I & II
5. OPEN ELECTIVE PAPER FOR UG and PG COURSES

and approved the same.

The board resolved to suggest that the total credits and marks for Allied Maths and Chemistry (or Allied Statistics or Allied Bioinformatics) should be the same

Maximum credit for each theory paper with the score of 100 marks need to be 4 with 4 contact hours per week.

The courses with 2 credits can have only 50 marks. The following changes done in the syllabi were approved by the Board.

## B.Sc Physics

1. In all the courses without changing the title of the course, **substantial changes (20 to 30 percent change)** have been made with respect to the content of the courses and all the courses are considered as **new courses**. In addition to this the following changes have been made.
2. The paper Heat and Sound in Semester 2 is changed to Heat and Thermodynamics(15PHU201).
3. The paper modern physics of 3 rd Semester B.Sc is removed and the units are redistributed in other papers, instead a paper titled as Solid State Physics(15PHU302) is introduced 3 rd Semester of B.Sc Physics.
4. In B.Sc Physics 3 elective courses are introduced for departmental courses and an open elective paper is introduced in the 4 th Semester.
5. In the fourth Semester Thermo Dynamics and Statistical Mechanics (14PHU402) has been replaced by Optics and Sound (15PHU402).
6. In the fourth Semester the elective papers Elective I: Applied Electronics (14PHU404A), Elective II: Microprocessor and its Applications – 8085 (14PHU404B) and Elective III: Materials Science (14PHU404C) has been removed.
7. In the Fifth Semester The Elective I courses Medical Physics (14PHU505A), From atoms to Universe(14PHU505B), and Atmosphere and Weather (14PHU505C), has been removed. Instead two new elective courses Numerical methods (15PHU505A) , Renewable energy sources (15PHU505B) and Non linear Optics(15PHU505C) has been Included.
8. In the Sixth Semester two electives II and III were introduced.  
Elective II:  
MATHEMATICAL PHYSICS (15PHU603A), NANOTECHNOLOGY & APPLCATIONS (15PHU603B)(new course), ASTROPHYSICS (15PHU603C)(new course),
9. Elective III  
ELECTROMAGNETIC THEORY(15PHU604A), OPTICAL COMMUNICATION (15PHU604B) (new course),, BIOPHYSICS (15PHU604C)(new course),
10. Allied mathematics practicals I was removed and instead soft skill development I(15SSD101) was introduced in Semester I
11. Allied mathematics practicals II was removed and instead soft skill development II (15SSD201) was introduced in Semester I
12. In Semester III Allied bioinformatics – 1 (15PHU303C), Allied statistics I (15PHU303B) were introduced as electives along with allied chemistry I. In Semester IV Allied bioinformatics – II (15PHU403C) (new course),, Allied statistics II (15PHU403B) (new course), were introduced as electives along with allied chemistry II.

13. In Semester III Allied bioinformatics Practical- 1 (15PHU313C), Allied statistics Practical I (15PHU313B) (new course), were introduced as electives along with allied chemistry Practical I. In Semester IV Allied bioinformatics Practical – II (15PHU413C) (new course), Allied statistics Practical II (15PHU413B(new course)), were introduced as electives along with allied chemistry Practical II.

### M.Sc Physics

The board recommends the introduction of 4 elective papers two each in II and III Semester respectively and a new open elective paper (Introduction to Astronomy -15OEP201) in the second Semester.

Electives in Semester II (all are new courses except 15PHP203B and 15PHP204A)

| LIST OF CORE COURSE ELECTIVES |                                 |
|-------------------------------|---------------------------------|
| 15PHP203A                     | Material Science                |
| 15PHP203B                     | Astronomy and Astrophysics      |
| 15PHP203C                     | Crystal Growth Techniques       |
| 15PHP203D                     | Digital Signal Processing       |
| 15PHP203E                     | Computational Physics           |
| 15PHP204A                     | Thin Film Physics               |
| 15PHP204B                     | Nano structure Characterisation |
| 15PHP204C                     | Nonlinear Dynamics              |
| 15PHP204D                     | Quantum Field Theory            |
| 15PHP204E                     | Optoelectronics                 |

Electives in Semester III (all are new courses except 15PHP305A)

| LIST OF CORE COURSE ELECTIVES |                                        |
|-------------------------------|----------------------------------------|
| 15PHP304A                     | Digital Electronics and Microprocessor |
| 15PHP304B                     | Physics of Materials                   |
| 15PHP304C                     | Reactor Physics                        |
| 15PHP304D                     | Plasma Physics                         |
| 15PHP304E                     | Geophysics                             |
| 15PHP305A                     | Solar Energy and its utilization       |
| 15PHP305B                     | Nanotechnology                         |
| 15PHP305C                     | Particle Physics                       |
| 15PHP305D                     | Statistical Physics                    |
| 15PHP305E                     | Biophysics                             |

The board approves the suggestion that in Semester I

1. The title of the course Electronics (14PHP103) has been renamed as Electronics Devices and Circuits (15PHP102).
2. The course Thermal and statistical Physics (14PHP303) from Semester III has been renamed and placed in Semester I as Thermodynamics and Statistical Mechanics (15PHP103).
3. In Semester III the course Nuclear Physics and particle physics (14PHP304) has been renamed and placed in Semester II as Nuclear Physics (15PHP202). The course in Semester II Atomic and molecular spectroscopy (14PHP202) has been renamed and placed in Semester III as Spectroscopy(15PHP303). From the second Semester the course Electromagnetic theory and Electrodynamics (14PHP203) has been shifted to Semester IV.
4. In Semester III the course Optics and Lasers (14PHP302) has been changed into Laser and its applications (15PHP302)
5. The board approves the suggestion that paper electronics in I Semester is replaced with the paper Electronic devices and Circuits, that is the paper 15PHP304A replaces 15PHP102 Electronics paper instead a newspaper Digital Electronics and Microprocessor will replace the 15PHP304A ie., Electronics Devices and Circuits.
6. The board approves the syllabus of Digital Electronics and Microprocessor (15PHP304A).
7. In the first 3 Semester, at the end of each Semester, at the end of each Semester only one physics practical paper will be conducted.
8. In the Semester I the practical courses General Physics Practical I (14PHP111) and Electronics Practical I (14PHP112) has been combined and named as Physics Practical I(15PHP111)(new course)
9. In the Semester II the practical courses General Physics Practical II (14PHP211) and Electronics Practical II (14PHP212) has been combined and named as Physics Practical II(15PHP211) (new course)
10. In the Semester III the practical courses Advanced Physics Practical (14PHP311) and Advanced Electronics Practical (14PHP312) has been combined and named as Physics Practical III(15PHP311) (new course)

Percentage of courses revised for UG programme = 53 %

Percentage of courses revised for PG programme = 31 %

#### Ph.D Programme

Total number of courses present during the year 2014-15 =10

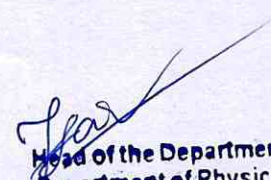
Total number of courses present during the year 2015-16 =6

Percentage change in the syllabi = 40%



**REGISTRAR**

Karpagam Academy of Higher Education  
(Deemed to be University Under Section 3 of UGC Act 1956)  
Poilachi Main Road, Eachanari Post,  
Coimbatore - 641 021.



Head of the Department  
Department of Physics  
Faculty of Arts, Science and Humanities  
Karpagam Academy of Higher Education  
Coimbatore - 641 021, Tamil Nadu, India.