J. J. COLLEGE OF ARTS AND SCIENCE (Autonomous)
Sivapuram, Pudukkottai – 622 422
(Re-Accredited by NAAC – 4th Cycle)
Affiliated to Bharathidasan University, Tiruchirappalli
DEPARTMENT OF PHYSICS
Minutes of the Board of Studies Meeting

Meeting No.: 08 **Date:** 20 - 03- 2024

The Meeting of the Board of Studies in Physics (U.G. and P.G.) for the **seventh revision of the curricula** to be implemented from **2024-2025** was conducted at 11.00 a.m. on Wednesday, 20.03.2024

Members Present:

S.No.	Name	Designation	Signature
1.	**Dr. M.K.Murali** Assistant Professor and Head Department of Physics	Chairman	20/3/24
2.	**Dr.S. Rajasekar** Professor, School of Physics, Bharathidasan University, Tiruchirappalli.	University Nominee	20/03/2024
3.	**Dr.A. Balamurugan** Assistant Professor of Physics Government Arts and Science College, Avinashi – 641654, Tirupur (Dt.)	Subject Expert	20/3/2024
4.	**Dr.M. Karunakaran** Associate Professor of Physics PG and Research Department of Physics Alagappa Government College, Karaikudi – 630 003	Subject Expert	20/3/24
5.	**Dr. K. Dhanabalan** Assistant Professor	Faculty Member	20/3/24
6.	**Ms. R. Shanthi** Assistant Professor	Faculty Member	20/03/2024
7.	**Ms. P. Parameswari** Assistant Professor	Faculty Member	20/3/24
8.	**Mr. S.Dhanachayan** Assistant Professor	Faculty Member	20/3/2024
9.	**Mr. G.Senthilkumar** Assistant Professor	Faculty Member	20/3
10.	**Mrs. S. KavithaSreetharkumar** Kumaran Scientific Co., Tiruchirappalli.	Representative from Industry	20/3/24
11	**Ms. R. Vinitha,** 4th Street, Kallifulla Nagar, Kallangudy (Po), Alangudi (Tk), Pudukkottai (Dt).	Alumni	ABSENT

1. 20/3/24 2. 20/3/24 3. 20/3/24 4. 20/3/2024 5. 20/3/24

The Chairman, Dr. M.K. Murali chaired the meeting and welcomed all the members to the Eighth BOS Meeting. Considering

1. In the notification No: 1616, dated 10.08.2021,the Chief Secretary, Department of Higher Education, Government of Tamil Nadu, has given the Autonomous Colleges, the freedom to retain / reframe their syllabi, Course Structure etc., in keeping with their perceptions on Institutional / local needs.
2. The College Council at its meeting held on 16.09.2023 resolved that our Institution will gratefully accept the academic freedom and empower the Boards of Studies either to retain or to reframe their Curriculum for various Programmes under CBCS and UGC- LOCF and,
3. However, the Course Structure for the U.G.& P.G. Programmes at Institutional level will have to follow a uniform pattern with minor variations depending on the discipline specific needs,the following resolutions are passed.

1. It is Resolved to modify and follow a total of 43 courses, 4300 marks and 141 credits for the U.G. Programmes and 21 courses, 2100 marks and 90 credits for the P.G. Programmes.

Distribution of Courses - U.G.

Sl.No.	Part	Courses	No. of Courses	No. of Credits	Marks
1.	I	Language Courses	4	12	400
2.	II	English Courses	4	12	400
3.	III	Core Courses	14	65	1400
5.		Project Work	1	04	100
6.		Discipline Specific Elective Courses	8	24	800
7.	IV	Internship	1	02	100
8.		Skill Enhancement Courses	7	14	700
9.		Value Education	1	02	100
10.		Environmental Studies	1	02	100
11.		Foundation Course	1	02	100
12.	V	Gender Studies	1	01	100
13.		Extension Activity	-	01	-
Total			**43**	**141**	**4300**

1. 20/3/24 2. 3. 20/3/24 4. 20/3/2024 5. 20/3/24

Distribution of Courses - P.G.

Sl.No.	Types of the Courses	No. of Courses	No. of Credits	Marks
1.	Core Courses	12	58	1200
2.	Project Work	01	10	100
3.	Discipline Specific Elective Courses	05	15	500
4.	Internship	01	03	100
5.	Skill Enhancement Courses	02	04	200
Total		**21**	**90**	**2100**

2. The Revised Syllabus has been implemented from the Academic Year 2023 – 2024 onwards. In the previous Boards of Studies meeting, the Syllabi for the course of first two Semesters have been passed. Now in the light of the Government Communication, cited in Point No. 1, the Chairman of the Boards of Studies have introduced some changes in the Syllabus for Semester I and Semester II. Such modifications are approved and passed by this Board.
3. The Course Structure mentioned in Point No: 1 for U.G.& P.G.Programmes have already been approved and passed by the Board of studies on 02.05.2023
4. In the present revision and modification, the General instructions on Curriculum Design, Course Structure, Uniformity of standards etc., given by the UGC - LOCF, AICTE, NAAC, TANSCHE and the Parent University have been scrupulously followed.
5. Following the suggestion given by the Honorable members of the Academic Council in its last meeting, a course on Gender Studies has been included.
6. Resolved to include various online courses like SWAYAM - MOOCs with extra credits. The credits thus earned will be reflected in the Cumulative Mark Statement of the students.
7. Resolved to continue offering Value Added Courses.
8. List the Courses newly introduced in UG & PG and details of Percentage of Revision carried out as an appendix.

1. 20/3/24 2. 3. 20/3/24 4. 20/3/24 5. 20/3/24

9. **Resolved to have the following Core Courses for B.Sc. Physics Semester wise:**

SEMESTER I

1. Properties of matter and sound(CC1)(It is a newly introduced course)
2. Practical-I(Covering CC1)(It is a newly introduced course)

SEMESTER II

1. Heat, Thermodynamics and Statistical Physics. (CC3)(It is a newly introduced course)
2. Practical-II (Covering CC3) (It is a newly introduced course)

SEMESTER III

1. Mechanics.(CC5) (It is a Core Course of previous curriculum but the unit contents are changed)
2. Practical-III.(Covering CC5) (It is a course of previous curriculum retained as it is)

SEMESTER IV

1. Electricity, Magnetism and Electromagnetism(CC7) (It is a Core Course of previous curriculum retained as it is)
2. Practical –IV(Covering CC7) (It is a course of pervious curriculum retained as it is)

SEMESTER V

1. Solid state Physics (CC9) (It is a course of pervious curriculum retained as it is)
2. Atomic and Nuclear Physics (CC10) (It is the newly introduced course)
3. Analogy Electronics (CC11) (It is a newly introduced course)
4. Practical-V (Covering CC9, CC10 and CC11)(It is a newly introduced Course)

SEMESTER VI

1. Quantum mechanics (CC13)(It is a newly introduced course)
2. Practical-VI (Covering CC13)(It is a newly introduced course)
3. Project Work

10. **Resolved to have the following Discipline Specific Elective Courses for B.Sc. Physics**

DSE 1 (Passed by Mathematics Department BoS)

1. Mathematics-I

DSE 2(Passed by Mathematics Department BoS)

1. Mathematics-II

DSE 3 (Passed by Chemistry Department BoS)

1. Allied Chemistry - I

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DSE 4 (Passed by Chemistry Department BoS)

1. Allied Chemistry-II(Practical)

DSE 5

1. Optics and Spectroscopy (It is a course of previous curriculum retained as it is)
2. Materials Science (It is a newly introduced course)

DSE 6

1. Nano Physics (It is a course of previous curriculum retained as it is)
2. Weather Forecasting (It is a newly introduced course)

DSE 7

1. Computer Programming-C language (It is a course of previous curriculum retained as it is)
2. Basic Instrumentation Skill (It is a newly introduced course)

DSE 8

1. Digital Electronics and Microprocessor 8085 (It is a newly introduced course)
2. Opto Electronics (It is a newly introduced course)

11. Resolved to have the following Skill Enhancement Courses for B.Sc. Physics

SEMESTER I (NME) [Offered to other Department]

1) Physics of Music (It is a newly introduced course)
2) Astro Physics (It is a newly introduced course)

SEMESTER II (NME) [Offered to other Department]

1) Medical Physics (It is a newly introduced course)
2) Home Electrical Installation (It is a newly introduced course)

SEMESTER II to VI (SEC III to SEC VII)

SEC III

1. Physics for Everyday life (It is a newly introduced course)
2. History of science (It is a newly introduced course)

SEC IV

1. Energy Physics (It is a newly introduced course)
2. Biomedical Instrumentation (It is a newly introduced course)

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SEC V

1. Laser Physics (It is a newly introduced course)
2. Communication System (It is a newly introduced course)

SEC VI

1. Physics for Home Appliances (It is a course of previous curriculum retain as it is)
2. Digital Photography (It is a newly introduced course)

SEC VII

1. Electrical Home Appliances (It is a course of previous curriculum retain as it is)
2. Medical Instrumentation (It is a newly introduced course)

12. Resolved to introduce Internship for UG in the fifth semester (Carried out in IV Semester Vacation)

13. Resolved to introduce the Foundation Course - Introductory Physics in Semester I

14. Resolved to have the following Core Courses for M.Sc. Physics

SEMESTER I

1. Mathematical Physics (CC1) (It is a newly introduced course)
2. Classical Mechanics (CC2) (It is a newly introduced course)
3. Practical-I (Covering CC1 and CC2) (It is a newly introduced course)

SEMESTER II

1. Statistical Mechanics (CC4)(It is a newly introduced course)
2. Quantum Mechanics-I (CC5)(It is a newly introduced course)
3. Practical-II (Covering CC4 and CC5)(It is a newly introduced course)

SEMESTER III

1. Electro Magnetic Theory (CC7) (It is a course of previous curriculum retained as it is)
2. Quantum Mechanics-II (CC8) (It is a newly introduced course)
3. Condensed Matter of Physics (CC9) (It is a course of previous curriculum retained as it is)
3. Practical-III (Covering CC7 and CC9) (It is a course of previous curriculum retained as it is)

1. 20/3/24 2. SRafaneen 3. 20/3/24 4. 20/3/24 5. 20/3/24

SEMESTER IV

1. Spectroscopy (CC11) (It is a course of previous curriculum retained as it is)
2. Nuclear and Particle Physics (CC12) (It is a course of previous curriculum retain as it is)
3. Project Work

15. Resolved to have the following Discipline Specific Elective Courses, Skill Enhancement Courses and Generic Elective Courses for M.Sc. Physics Semester wise

SEMESTER I

DSE 1

1. Physics of Nanoscience and Nanotechnology. (It is a newly introduced course)
2. Analysis of crystal structures (It is a newly introduced course)

DSE 2

1. Advanced Optics (It is a newly introduced course)
2. Bio Physics (It is a newly introduced course)

SEMESTER II

DSE 3

1. Linear and Digital Electronics IC's and Applications (It is a newly introduced course)
2. Communication Electronuics (It is a newly introduced course)

DSE 4

1. Microprocessor 8085 and Microcontroller 8051 (It is a newly introduced course)
2. Charecterization of Materials (It is a newly introduced course)

SEMESTER III

DSE 5

1. Crystal growth and Thin films (It is a course of previous curriculum retain as it is)
2. Medical Physics (It is a newly introduced course)

16. Resolved to have the following Skill Enhancement Courses for M.Sc. Physics Semester wise

Skill Enhancement Courses

SEC1:1- Soil Waste management(SWM) (It is a newly introduced course)
SEC 1:2-Sewage and Waste Water Management (It is a newly introduced course)
SEC2:1-Solar Energy Utilization (It is a newly introduced course)
SEC2:2-Thin films Physics (It is a newly introduced course)

1. 20/3/24 2. SRajamani 3. 20/3/24 4. 20/3/2024 5. 20/3/24

17. **Resolved to introduce Internship for PG in third Semester (during the II Semester vacation)**

18. **Resolved to offer the following Allied Courses for B.Sc. Computer Science / B.Sc. Mathematics / B.Sc. Chemistry Programmes**

B.Sc. Computer Science

1. Applied Physics (It is a the Course of previous curriculum but the title and unit contents are changed)
2. Applied Physics Practical (It is a course of previous curriculum retained as it is)

B.Sc. Mathematics / Chemistry

1. Allied Physics-I (It is a course of previous curriculum retained as it is)
2. Allied physics Practical-II (It is a course of previous curriculum retained as it is)

1. 20/3/24 2. S Rajamani 3. 20/3/24 4. 20/3/24 5. 20/3/24