

Date: 21-04-2021

MINUTES OF MEETING OF THE BOARD OF STUDIES in PHYSICS

The meeting of the Board of Studies in **PHYSICS** (UG) of the Department of PHYSICS, School of BASIC SCIENCES, VISTAS held on 21-04-2021 at 2 pm in the DEPARTMENT OF PHYSICS to discuss the **revision of UG Program Curriculum & Syllabus** of B.Sc. Physics.

Members Present:

S. No	Name & Designation	Address	Role
1	Dr. M. Parthasarathy Associate Professor & Head	Department of Physics, School of Basics Sciences, VISTAS, Chennai	Chairman
2	Dr. K. Gunasekaran Associate Professor	CAS Crystallography & Biophysics, University of Madras Chennai – 600 025 Email: gunaunom@gmail.com Mobile: 98417 37043	Academic Expert (External Member)
3	R. Narendran Director	United Spectrum Instruments 313/455 Amara Sri Tower, 7 th Floor Anna Salai, TeynampetChennai-18 E-mail: naren@unitedspectrum.in Mobile: 9789904948	Industrial Expert (External Member)
4	Dr. M. Sureshkumar Assistant Professor	Department of Physics, School of Basics Sciences, VISTAS, Chennai	Internal Member
5	Dr. S. Gnanam Assistant Professor	Department of Physics, School of Basics Sciences, VISTAS, Chennai	Internal Member

Objective of the Revision:

- To develop the curriculum based on Learning Outcome Based Curriculum Framework (LOCF)
- To consider present trend in the respective fields and industry relevant interdisciplinary courses.
- To implement the guidelines and suggestions of the new education policy while preparing the curriculum.
- To eliminate obsolete syllabus contents and introducing the latest / updated technologies, new knowledge and practices.
- To design the curriculum focussing on skill development, Employability and Entrepreneurship

Feedback from Stakeholders:

S. No	Name & Designation	Comments	Role
1	Dr. A. UthayaKumar Associate Professor, Department of Physics, Government Arts College, Nandanam, Chennai-35	The current content of syllabus adequately covers all the fundamentals of Physics and enhances the knowledge of theoretical and practical aspects, stimulating the creativity and innovation in students.	Academic Expert
2	Mr. V. Meiyappan Senior Chemists, CVR Analytical lab, Saidapet, Chennai-15	The revised syllabus may enhance the employability, skill development and entrepreneurship of UG students. This revision is in consideration to increase the Employability of students. The adoption of LOCF with the CBCS pattern will enlighten the bright future of the students.	Industrial Expert
3	Dr. M. Arivanandhan Associate Professor, Centre for Nanoscience and Technology, Anna University, Chennai	The revised syllabus framed as per LOCF meets the Programme Specific Outcomes and Course Learning Outcomes. This revision is considered with the present need of industry requirement and increase the Employability of the youngster of physics students	Academic Expert
4	Ms. S. Indu PG student	The revisions done in existing syllabuses are very much needed for the Employability and Entrepreneurship of the UG students.	Alumni

Number of New Courses Introduced: 6 (CORE- 2; DSE – 1; GEC –1; AECC-1, SEC-1)

% of Syllabus Revision in the Program: 30% (UG)






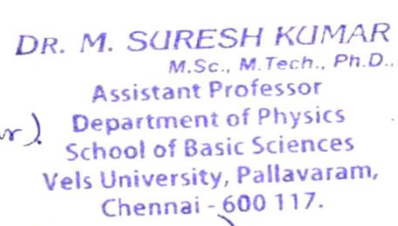



B.Sc. Physics		
Existing Subjects		New Subjects
S.No.	2018-2019	2021-2022
1	Properties of Matter & Acoustics	Properties of Matter & Acoustics
2	Optics	Optics
3	Atomic Physics	Atomic Physics
4	Physics Practical IV, DSE Lab I & DSE Lab II	Physics Practical IV, DSE Lab I & DSE Lab II
3	Mathematics	Mathematics-I & Mathematics-II
4	Laser Physics & Spectroscopy	Laser Physics & Spectroscopy

5	Nuclear & Particle Physics	Nuclear Physics
6	Nanomaterials and Applications	Nanomaterials and Applications
II. The following new subjects are introduced for the benefit of students in the 4 th & 5 th semesters <ol style="list-style-type: none"> 1. Astrophysics (Core) 2. Quantum Mechanics (DSE) 3. Microprocessor (DSE) 		

Resolved to recommend that the Curriculum & Syllabus for the B.Sc. Physics is revised based on Choice Based Credit System (CBCS), Elective Course System (ECS) and Learning outcome-based curriculum framework (LOCF) guidelines of UGC for the Academic year 2021 - 2022 be approved.

Revision of UG Programmes/courses focussed on employability/entrepreneurship/skill development introduced during the Academic year 2021-22 is enclosed in Annexure.

Signature of the Members:

1. **Chairman**

 (Dr. M. Parthasarathy) 21/4/21

2. **External Member- Academic Expert**

 (Dr. S. Gnanam) 21/4/21

 Assistant Professor
 CAS in Crystallography & Biophysics
 University of Madras
 Guindy Campus, Chennai-600 025
3. **External Member- Industrial Expert**

 (Dr. M. Suresh Kumar) 21/4/21
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4. **Internal Member**

 (Dr. S. Gnanam) 21/4/2021

5. **Internal Member**

 (Dr. S. Gnanam) 21/4/2021

Annexure:

Name of the Program	Name of the Course	Category	Year of introduction	Year of Revision	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development

B.Sc. Physics	Properties of Matter & Acoustics	CORE	2017-2018	2021-2022	Skill development
	Mechanics	CORE	2017-2018	-	Skill development
	Mathematics - I	CORE	2017-2018	2021-2022	Skill development
	Practical Physics - I	CORE	2018-2019	-	Entrepreneurship
	Thermal Physics	CORE	2017-2018	-	Skill development
	Optics	CORE	2017-2018	2021-2022	Skill development
	Mathematics - II	CORE	2017-2018	2021-2022	Skill development
	Practical Physics - II	CORE	2018-2019	-	Entrepreneurship
	Electricity & Magnetism	CORE	2017-2018	-	Skill development
	Chemistry - I	CORE	2017-2018	-	Skill development
	Practical Physics – III	CORE	2018-2019	-	Entrepreneurship
	Chemistry Practical – I	CORE	2017-2018	-	Entrepreneurship
	Atomic Physics	CORE	2017-2018	2021-2022	Skill development
	Astrophysics	CORE	2021-2022	-	Skill development
	Chemistry – II	CORE	2017-2018	-	Skill development
	Practical Physics – IV	CORE	2018-2019	2021-2022	Entrepreneurship
	Chemistry Practical – II	CORE	2017-2018	-	Entrepreneurship
	Quantum Mechanics	CORE	2021-2022	-	Employability
	Communication Skills	AECC	2021-2022	-	Skill development
	Environmental Studies	AECC	2017-2018	-	Entrepreneurship
	Soft Skill – I	SEC	2017-2018	2021-2022	Skill development
	Soft Skill – II	SEC	2017-2018	2021-2022	Skill development
	Soft Skill - III	SEC	2021-2022	-	Skill development
	Personality Development	SEC	2017-2018	-	Skill development
Physics Workshop Skills	SEC	2018-2019	-	Entrepreneurship	
Energy Physics	GEC	2021-2022	-	Entrepreneurship	
Laser Physics & Spectroscopy	DSE	2017-2018	2021-2022	Employability	

Nuclear Physics	DSE	2017-2018	2021-2022	Employability
Analog and Digital Electronics	DSE	2018-2019	-	Entrepreneurship
Microprocessor	DSE	2021-2022	-	Entrepreneurship
DSE Practical-I	DSE	2018-2019	2021-2022	Employability
Solid State Physics	DSE	2017-2018	-	Entrepreneurship
Nanomaterials & Applications	DSE	2017-2018	2021-2022	Entrepreneurship
Dissertation	DSE	2017-2018	-	Employability
DSE Practical-II	DSE	2018-2019	2021-2022	Entrepreneurship