

UG Physics BOS Meeting on 07.06.2021

Course with Code	Feedback from Stakeholders	BOS observation	Action taken
121P01 - Part III Core I - Properties of Matter and Sound	Variation of 'g' may be included <i>Students</i>		Unit I: Value of g at the poles and at the equator Variation of g with altitude Variation of g with depth Variations of g with rotation of the earth. Unit II: Poisson's ratio - Poisson's ratio of rubber Beam supported at its end and loaded in the middle - I section Girders Cantilever - Determination of Elastic constants by Searle's method.
	I section girders may be included in elasticity. <i>Employers.</i>	Topic in waves and determination of velocity of sound may be included.	Unit IV: Waves & Velocity of Sound. Unit V: Applications of ultrasonics.
321P03 - Core III Physical and Laser Optics	Various types of lasers & its applications may be included. <i>Alumni</i>	<i>Teachers</i>	Unit IV: Inclusion of Quantum transition in Absorption and Emission of light. Unit V: Ruby laser, Nd:YAG lasers, Liquid Laser: Organic dye laser - Semiconductor Laser - Applications of Lasers: Industry - Medicine - Optical Communication

221PP1 - Core Experiments
 Practical I, related to Core 1
 421PP2 - Core Elective Courses
 Practical II, may be done
 521PP3 - Core as practicals in
 Practical III & the respective
 621PP4 - Core Semesters.
 Practical IV

Alumni

Inclusion of Measurements of Breadth, Thickness and diameter of solid material using Vernier caliper, Screw gauge, Acceleration due to gravity - Kater's pendulum, Young's modulus - Non-Uniform bending - Pin & Microscope, Surface tension, Capillary rise method - Specific heat capacity of a liquid - Joule's calorimeter in the I Year.

Calibration of high range Ammeter - Potentiometer Deflection and Vibration magnetometers - M and B_n Deflection magnetometer - Tan C method in the II Year.

UTT Characteristics - Construction of low voltage power supply using diodes in semester V

Solving Boolean equations, Construction of the logic circuits and verification of truth tables in semester VI.

Course: Part IV
 Non Major
 Elective -
 Science in
 Everyday Life

What is the best method of water purification?
 Why is distilled water not used for drinking?
 Why does water sweet when had after a goose berry?
 Can we use a TV monitor for a Computer monitor and the vice versa?

421P05 - Part III
 Core V - Atomic
 Physics and
 Spectroscopy

Recommended to include topics related to photoelectric effect & Spectroscopy in the Curriculum.
 Unit III - Photoelectric effect.
 Unit IV - Infrared Absorption Spectroscopy.
 Unit V - Raman and UV spectroscopy.

521P06 - More topics
 Mechanics may be included in classical Mechanics

Teachers

Unit III: Classical Mechanics - Lagrangian
 Unit IV: Classical Mechanics - Hamiltonian.
 Unit V - Hamilton - Jacobi

Alumni

521P07 -
 Mathematical
 Physics

Differential equations & Partial Differential Equation may be included in Mathematical Physics.
 Unit III - Differential equations &
 Unit V - Partial Differential Equations in Physics.

621P09 - Core IX
 Solid State
 Physics.

Solid State Physics may be enhanced.
 Unit I: Symmetry elements of crystalline solid: Centre of symmetry - Plane of

Teachers

Symmetry - Axis of symmetry -
Absence of 5-fold axis of
symmetry - Roto inversion axis -
Screw axis - Glide plane -
Symmetry groups, Zinc blend
structure.

Unit II: Crystal Imperfections

Unit III: The quantum
free electron theory - Electron
energies in metals - Electrical
conductivity of a metal
(by quantum free electron
theory) - Fermi Dirac
distribution function and
its variation with temperature
Density of states.

Unit IV: Domain theory of
ferromagnetic materials -
Processes of domain
magnetization - Energy involved
in the domain growth -
Hysteresis.

Unit V: Calculation of
Electronic Polarizability - Ionic
polarization - Orientation
polarization - Expression for
orientation polarizability -
Determination of dielectric
constant and dipole moment
of a dielectric material -
ferro electric materials -
Barium Titanate - Lithium
Niobate.

321PS1 -
SEC I
Professional
English

Professional
English may be
introduced
for the
students

SEC I: professional
English is introduced
as New SEC I in
the III semester

Teachers

421PS2 -
SEC II -
Instrumentation
Physics I
(Theory &
Practical)

Practicals may
be included
in each unit
and the
course may
be revamped

Inclusion of SEC II -
Instrumentation Physics I
(Theory & Practical)
in the IV semester

Teachers

521PS3 -
SEC III
Instrumentation
Physics II
(Theory &
Practical)

Practicals
may be
included in
each unit
and the
course may
be revamped

Inclusion of SEC III -
Instrumentation physics II
(Theory & Practical)
in the V semester

Teachers

621PS4 -
SEC IV
Industrial
training

Institutional
Training
may be
renamed as
Industrial
Training

Institutional Training
renamed as
Industrial Training
in the VI semester

Teachers

221AM2/ 221AC2 Allied II - Physics II	LED may be included in Allied Course <i>Alumni</i>	Unit IV : Inclusion of LED instead of FET
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Chairman: Mrs. B. Nirmala
Head of the Dept. of Physics.

Members: Mrs. T.V. Banumathi

Dr. S. Aram

Dr. B. Kavitha

Dr. M. Nirmala

Ms. J. Sree Sudha

Mrs. S. Deepika

Mrs. D. Radhamani

B. Kemp

M. An

T. Sreedh

S. Dny

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PGT Physics BOS Meeting on 07.06.2021

Course with Code	Feedback from Stakeholders	BOS Observation	Action taken.
Core I: Classical Mechanics (21MP01)	Properties of t, v, w and Parallel pendulum may be excluded.	Recommended to include Hamilton's characteristic function.	Inclusion of Hamilton's characteristic function in unit IV and exclusion of the topics - properties of t, v, w and parallel pendulum.
Core II: 21MP02 - Mathematical Physics - I & Core V: 21MP05: Mathematical Physics - II	Students	Unit I - Tensors & Unit II - Group Theory may be shifted to Mathematical Physics - II. 21MP05 & Differential equations from Mathematical Physics II may be shifted to Mathematical Physics 21MP02 as Unit I & Unit II.	Differential equations incorporated in the Mathematical Physics I Course and Tensors & Group theory in Core V Mathematical Physics II.
Practical I 21MPP1	Design of Differential Amplifier &	Teachers:	Thickness of wire by Air Wedge and diffraction Parameters of Op-Amp.
Practical II 21MPP2	Parameter of Op-Amps may be included in the practicals for clear		Design of Differential Amplifier in Practical I. Shift registers using flip-flop and IC's in Practical II.

Allemari

	understanding of the subject		
21MP06: Core VI Quantum Mechanics I		Inclusion of Hydrogen atom & discussion of bound states in unit II was recommended.	Inclusion of The Hydrogen Atom: Solution of the Radial equation; Energy Levels- Stationary wave functions- Discussion of bound states - Solution in Parabolic coordinates
21MPE6: Elective IV- Computational Physics (T&P)		Computational Physics may be opted as Elective Course instead of Core Course	Computational Physics (Theory & Practicals)- 21MPE6 as an Elective Course IV instead of Core Course
21MPE3: Elective II: Nanoscience and Applications		Recommended to have Elective II- Nanoscience and Nano-technology as Elective II Nano Science And Applications.	Nanoscience and Nanotechnology renamed as Nanoscience and Applications.
21MPE8: Elective IV- Advanced Materials	Advanced Materials may be offered as Elective Course instead of ALC	<i>Teachers</i>	Advanced Materials was introduced as Elective IV with Course Code 21MPE8 in the Semester IV.

Alumni

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