

Devrukh Shikshan Prasarak Mandal's

**Nya. TATYASAHEB ATHALYE ARTS, Ved. S.R. SAPRE
COMMERCE & Vid. DADASAHEB PITRE SCIENCE
COLLEGE, DEVRUKH [AUTONOMOUS]**



Syllabus for F.Y. B.Sc.

Program: B.Sc.

Course: Physics

Credit Based Semester and Grading System with the

Effect from

Academic Year 2020-21

Syllabus for B.Sc. Physics (Theory and Practical)
As per credit based system
First Year B.Sc.2020–2021.

The revised syllabus in Physics as per credit based system for the First Year B.Sc. Course will be implemented from the academic year **2020–2021.**

Preamble:

The systematic and planned curricula from these courses shall motivate and encourage learners to understand basic concepts of Physics.

Objectives:

- To develop analytical abilities towards real world problems
- To familiarize with current and recent scientific and technological developments
- To enrich knowledge through problem solving, hands on activities, study visits, projects etc.

Course code	Title	Credits
Semester I		
USPHT11		2
USPHT12		2
USPHP1	Practical I	2
Total – 06		
Semester II		
USPHT21		2
USPHT22		2
USPHP2	Practical II	2
Total - 06		

Semester I: physics practical -I

Name of the Programme	Duration	Semester	Subject
B.Sc. In Physics	Six Semesters	I	Physics
Course Code	Title	Credits	
USPHP1	physics practical -I	2 for USPHP1	

Learning Outcomes:

After successful completion of this course students will be able to

1. Know the concepts behind all the demo experiments.
2. Understand the proper way of plotting various graphs
3. Explain the principle of each of the experiments

Course Content

List of Experiments

1. Plotting of graphs – bell shaped curve, simple straight line, Y/X-intercept, polar graphs
2. Vernier, micrometer, Travelling Microscope, angle measurement
3. DMM, Basic devices, components and values
4. Density of various liquids
5. Torsional Oscillations
6. Poiseuille's Method
7. Image formation by a lens
8. Newton's Rings
9. Frequency of AC mains
10. Basic logic gates
11. Universal building blocks
12. CVAT

Demonstrations

1. Use of scientific calculator
2. f by Auto collimation, pendulum time period
3. study of optical instruments – telescope, microscope and prism
4. laser experiments – reflection, refraction, TIR
5. Light experiments - Dispersion of light, biprism, Thin film colours

References:

1. Advanced course in Practical Physics: D. Chattopadhyaya, PC. Rakshit & a. B. Saha (8th Edition) Book & Allied Pvt. Ltd.
2. B Sc. Practical Physics: C. L. Arora (1st Edition) – 2001 S. Chand & Co.Ltd.
3. Text book of Practical Physics: Samir Kumar Ghosh New Central Book Agency (4th edition)