

UNIVERSITY OF MADRAS
B.Sc. DEGREE PROGRAMME IN PHYSICS
 SYLLABUS WITH EFFECT FROM 2023-2024

| 937SEC1: PHYSICS FOR EVERYDAY LIFE | |
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| Learning Objective: To know where all physics principles have been put to use in daily life and appreciate the concepts with a better understanding also to know about Indian scientists who have made significant contributions to Physics | |
| UNITS | COURSE DETAILS |
| UNIT-I | MECHANICAL OBJECTS: spring scales – bouncing balls –roller coasters – bicycles –rockets and space travel. |
| UNIT-II | OPTICAL INSTRUMENTS AND LASER: vision corrective lenses – polaroid glasses – UV protective glass – polaroid camera – colour photography – holography and laser. |
| UNIT-III | PHYSICS OF HOME APPLIANCES: bulb – fan – hair drier – television – air conditioners – microwave ovens – vacuum cleaners |
| UNIT-IV | SOLAR ENERGY: Solar constant – General applications of solar energy – Solar water heaters – Solar Photo – voltaic cells – General applications of solar cells. |
| UNIT-V | INDIAN PHYSICIST AND THEIR CONTRIBUTIONS: C.V.Raman, HomiJehangirBhabha, Vikram Sarabhai, Subrahmanyam Chandrasekhar, Venkatraman Ramakrishnan, Dr. APJ Abdul Kalam and their contribution to science and technology. |
| TEXT BOOKS | 1. The Physics in our Daily Lives, UmmeAmmara, GugucoolPublishing, Hyderabad, 2019. 2. For the love of physics, Walter Lawin, Free Press, New York, 2011. |

METHOD OF EVALUATION:

| Continuous Internal Assessment | End Semester Examination | Total | Grade |
|---------------------------------------|---------------------------------|--------------|--------------|
| 25 | 75 | 100 | |