

Syllabus : PH3105

Experiments:

- Expt-1:** *Study of Geiger-Muller Counter and counting statistics by γ -ray source.*
- Expt-2:** *Study of γ -ray absorption in matter and inverse square law by γ -ray source.*
- Expt-3:** *Study of γ -ray energy spectrum using a scintillation counter with Single Channel Analyzer (SCA).*
- Expt-4:** *Analysis of γ -ray energy spectra with Multichannel analyzer (MCA).*
- Expt-5:** *Study of beta-spectroscopy.*

Reference Books :

- *Nuclear Physics: Principles and Application*; By J. Lilley.
- *Nuclear Physics*; By I. Kaplan.
- *Concept of Nuclear Physics*; By B. L Cohen.
- *Quarks & Leptons: An Introductory course in modern particle physics*; By F. Halzen and A. D. Martin.
- *Concept of Modern physics*; By A. Beiser.
- *Introduction to Nuclear and Particle Physics*; By V. K. Mittal, R. C. Verma, and S. C. Gupta.
- *Nuclear Physics*; By S. N. Ghoshal.
- *Introductory Nuclear Physics*; By K. S. Krane.
- *Radiation Detection and Measurement*; By. G. F. Knoll,
- *Nuclear Radiation Detection, Measurements and Analysis*; By K. M. Varier.

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