


MANGALORE UNIVERSITY
MSc Medical Physics

MPP 457: Medical Physics Practical-IV

(4 hr in a week) Objective:

To impart the practical knowledge on various radiation detecting and measuring equipment and also chemical and physics dosimeters used in dosimetry.

Outcomes:

Students will be able to design experiments to use, operate, characterise and measure different parameters using radiation detectors and dosimeters.

List of experiments:

1. Calibration of a therapy level dosimeter.
2. Calibration of TL phosphor & TLD reader and its use in dose distribution measurements.
3. Determination of plateau and resolving time of a G.M. counter and its application in estimating the shelf-ratio and activity of a beta source.
4. Output measurement of a gamma chamber using Fricke dosimeter.
5. Dose rate measurement of teletherapy machines using FBX dosimeter.
6. Calibration of a TLD personnel monitoring badge and dose evaluation.
7. Characteristics of a flow counter and beta activity measurement.
8. Calibration of Gamma ray spectrometer [NaI(Tl), HPGe] and identification of unknown sources using multichannel analyser.

Additional experiments may be added