Enzymology and Enzyme technology

This is a four credit course, which includes class room teaching, practical laboratory experiments and industry visits. It can be selected individually by the students and does not comprise a consolidated course program.

Prerequisites: Basic biological science background.

Evaluation: Continuous evaluation which includes seminars, practical experiments, field visits, reports, discussions, debates and at least two written tests

Learning objectives: The student will have an understanding of enzymes, their classification, mechanism of action, kinetics and industrial applications

Unit –I


Unit –II

Structure and General properties of enzymes; Active site and Specificity of enzyme; Enzyme substrate complex. Induced fit theory. Mechanism of enzyme action, Factors affecting enzyme activity; Isozymes; Coenzymes, Metalloenzymes; membrane bound enzymes; Multienzyme complexes

Unit –III


Unit –IV


Unit –V

**Unit –VI**


**References:**

1. Immobilized enzymes and cells-A. Rosevear et al., 1987, Adam Higher imprint IOP Publishing.
2. Clinical chemistry-a fundamental textbook-Donald F. Calbreath, 1992, W. B. Saunders company