Course Name**: **Experiments in Enzymology

Course No. & Symbol**: **BCH 322

Credits**: **2 (0+2)

Pre-requisite**: **BCH 201

Day & Time: Tuesday - from 1 p.m. until 5 p.m.(Building 8,firest floor)

Course Description:

A set of special experiments designed to study parameters of enzyme activity, activation & inhibition, and isolation & characterization of enzymes.

Course Grading:

- In lab short quizzes weekly
-Evaluation of Lab reports
-Midterms and final exams (Theoretical and Practical)

***100 degree distributed as follows**:*
*5 marks**:** practical performance*

15 marks: average of quizzes during the semester

15 marks: average of reports during the semester

*25 mark: for the midterm exam **(Theoretical -10 marks and Practical -15 marks**)*

*40 marks: for the final exam **final exams (Theoretical -15 marks and Practical -25 marks)***

Course Experiments include:

Week	Title of the Experiments
1	*Some factors effecting Polyphenol Oxidase Activity (Introduction to Enzymology)*
2	*Methods of Enzyme Assay*
3	*Purification of Acid Phosphatase from wheat germ*
4	*The effect of incubation time on the Rate of an Enzyme Catalyzed reaction*
5	*The effects of Temperature on the Rate of an Enzyme Catalyzed reaction*
6	*The effects of Enzyme Concentration on the Rate of an Enzyme Catalyzed reaction*
7	*The effects of PH on the Rate of an Enzyme Catalyzed reaction*
8	*The effects of Substrate Concentration on the Rate of an Enzyme Catalyzed reaction*
9	*The Inhibition of Acid phosphatase by Inorganic Phosphate*

References:

- G.Douglas Crandall, Selected exercises for the Biochemistry Laboratory, Chapter 5, Oxford University Press, New York. 1983

- Lehninger A.L. , (1993), principles of Biochemistry, Worth publisher,inc. , New York

- Paum, S.J. and Bowen, W.R. (1972), Exercises in organic and biological chemistry, The Macmillan Company, 566 Third Avenue, New York 10022.

- Verjee Z.H.M. Isolation of Three Acid Phosphatases from Wheat Germ European J. Biochem. 9 (1969) 439-44

Note:

All Students should be wear lab gown and gloves for safety inside the lab.