

**Office of Academic Affairs
Tarleton State University
July, 2002**

Master Course Syllabus Outline

Department: Chemistry and Geosciences Course Prefix/Number: CHEM4783
Official Course Title: Biochemistry Lab
Master Syllabus Approved by Department on: / /

I. Catalog Description (50 words; brief synopsis of course content, emphases)

Principles and applications of basic methodology for the isolation, purification, characterization, and quantitative determination of biologically important compounds. Credit for both BIOL 4783 and CHEM 4783 will not be awarded. Lab fee, \$15.

II. Prerequisites?

Prerequisite: BIOL 4743 or CHEM 4743 or concurrent enrollment, or approval of department head.

III. Expanded Course Description (150 words; primary course content, intended student level and role(s) course is to play in the curriculum)

This course is composed of a series of experiments designed to introduce the student to basic concepts of protein and carbohydrate detection and quantitation, protein purification, enzyme kinetics, as well as lipid purification.

This course is recommended for chemistry and biology majors, pre-professional students, and graduate students in any life science field.

The course consists of approximately 1 hour per week of pre-laboratory lecture and 5 laboratory hours per week.

IV. Intended Student Learning Outcomes?

Knowledge outcomes (what students who successfully complete the course will be expected to know). Required.

Upon completion of this course:

1. Students will be able to demonstrate a satisfactory understanding of concepts utilized in experimental biochemistry.
2. Students will be able to demonstrate a satisfactory understanding of analysis of self-acquired biochemical data.
3. Students will be able to communicate via written reports.

Skill outcomes (what students who successfully complete the course will be able to do). Optional.

Upon completion of this course:

1. Students will be able to function safely in a laboratory setting.
2. Students will be able to present data in a clear concise manner as part of a written report.

Value outcomes (what students who successfully complete the course will value or appreciate). Optional.

Students will have an appreciation of the scientific method and the role of biochemistry in modern society.

V. Unless otherwise stipulated in this master syllabus by the department, the following items are subject to faculty discretion as described in each faculty member's individual course outline/syllabus:

a) Course Requirements? (grading/evaluation procedures; class attendance policy; term papers, projects, field assignments; examinations; class participation, etc.)

The course grade is determined as follows:

Lab Reports	50%
Unknowns	10%
Mid-term Exam	20%
Final Exam	20%

Missed labs cannot be made up; therefore, a score of zero will be recorded for the missed lab.

b) Required Text(s)?

c) Bibliography?

Department Head Signature/Date:

Signature

____/____/____
Date