

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

Master Course Syllabus Outline

Department: Chemistry and Geosciences Course Prefix/Number: CHEM4753

Official Course Title: Biochemistry II

Master Syllabus Approved by Department on: / /

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

A detailed survey of intermediary metabolism. The metabolism of carbohydrates, lipids, proteins, and nucleic acids, and the regulation of metabolism are emphasized. Credit for both BIOL 4753 and CHEM 4753 will not be awarded.

II. Prerequisites?

Prerequisites: BIOL/CHEM 4743, 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)

Major topics to be covered include lipid structure and functionality, basic nucleic acid structure, functionality and regulation, basic amino acid metabolism, and their relationship to carbohydrate metabolism.

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

The course consists of three lecture 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 lipid structure and functionality.
2. Students will be able to demonstrate a satisfactory understanding of basic nucleic acid structure, functionality and regulation.
3. Students will be able to demonstrate a satisfactory understanding of basic amino acid metabolism.

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 recognize and draw several different types of molecules found in living cells.

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

Students will have an appreciation of the chemical commonality of cells of all living organisms.

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.)

Grading Policy

The course grade is determined as follows:

3 tests	60%
Best 10 quiz scores	20%
Final exam	20%

Quizzes are given once a week.

- b) Required Text(s)?

Biochemistry: The Molecular Basis of Life, McKee & McKee. 3rd Edition, McGraw Hill Publishing Co., 2003.

- c) Bibliography?

Department Head Signature/Date:

Signature

____/____/____
Date