

OGLALA LAKOTA COLLEGE:

SYLLABUS FOR CHEM 263: Organic Chemistry II

Spring semester 2010

Location: Pine Ridge and Rapid City College Centers

Instructor: Dr. Deig N. Sandoval

Office hours: See me after the lecture or contact by email: deig@o1c.edu Lecture Time:
Wednesdays 9:00 AM- 12:00 PM

Text book: Introduction to General Organic and Biochemistry, Hein, Pattison, Arena and Best, Wiley and Sons, Nine Edition, NJ, 2005

Course Description: This class is a continuation in the study of the basic concepts of organic chemistry including some sections on biochemistry. It will touch on the functional groups, spectroscopy, nucleophilic substitution and elimination reactions and examination of certain biochemistry principles such as the study of carbohydrates, lipids and proteins including their role in metabolic reactions.

Course Objectives: To recognize functional organic groups as well as the chemical reactions that they can undergo. To recognize the differences in functional organic groups and some of their physical and chemical properties. To understand the make up of some biomolecules and implications of the structure of the organic molecules, then- nomenclature and bonding as applied to compounds relevant to the human organism.

Attendance: You are required to attend every class period. There may be a short quiz at the beginning of each lecture to help you understand the nature of the work we will be doing.

Course philosophy

You are not studying and learning for the instructor, but for yourself. Grades are important for your academic career; nevertheless, your professional life really begins after you graduate. Understanding the basic principles of science will help not only in any professional career, but also to understand and appreciate your surroundings and life itself. Actively take part in the class, especially when problems are worked on the blackboard. This will help you to solve similar problems in your homework, quizzes and exams.

Prerequisites: Chemistry 253, chemistry 2251.

Descriptive reading load: Grade 13 reading level.

One or two chapters every 2 weeks will be covered.

Types and amounts of writing expected: Assignments and essay questions must be written in complete sentences. Simply copying sentences from the text book constitutes plagiarism and will not be accepted.

Lakota perspective provided through: Students and instructor will treat each other with respect. This respect will also be extended to all living and natural things that will be gathered

For and used in this class.

CLASS SCHEDULE:

Chapter # (from textbook)	Chapter title
25	Amides and Amines
26	Stereoisomerism
27	Carbohydrates
Not in the book	Infrared Spectroscopy
Not in the book	Nuclear Magnetic Resonance Spectroscopy
28	Lipids
29	Amino Acids, Polypeptides, and Proteins

Assignments. There will be 6-graded assignments as homework which will be worth 30% of the total grade. There will be 3 quizzes which will be worth 20% of the total grade. There will be 2 mid term exams which will be worth 30% of the total grade. The final exam will be worth 20% of the total grade.

The following grade scale will be used:

A = 90 -100 %
B = 80 -89.9 %
C = 70 -79.9 %
D = 60 -69.9 %
F = below 60.0 %