

Biochemistry- Nucleic Acids CHEM 3813

Prof. Michelle Knowles

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Meeting time and location: MWF 11-11:50 am, BAUD 102

Final Exam time and location: Wednesday, June 5, 10-11:50, BAUD 102

Office hours: M 12-1pm, W 9:30-10:30 am in SGM 101



Course Goals: To learn about the chemistry behind DNA replication, transcription, translation, and gene regulation. We will also review modern DNA techniques and discuss the history of discoveries that lead to our current knowledge of nucleic acids and the genome.

Required Materials:

- Lehninger Principles of Biochemistry (5th or 6th edition)
- Clicker connected to Blackboard for quizzes

Grading:

A. Exams (3): All exams are cumulative, but recent material will be emphasized.

Approximately half of each exam will be multiple choice and half will be short answer.

Exams will take place in Week 4, 7 and during our allotted final time.

NO MAKE UP EXAMS will be given unless you are traveling on a DU athletic team, music group, or are a member of the US Armed Forces and have a conflict.

If you need more time for the exam please contact me to discuss options.

B. Clicker questions: At the *beginning* of each non-exam class period, there will be 3-5 multiple-choice, clicker questions. This is done to encourage review of previous notes and the text. Each day is worth 4 points. The lowest three days will be dropped. This begins on Friday Week 1 at 11am.

Clickers will be used in a non-grading way for me to assess what you already know from other courses. I will write “not graded” at the bottom of these questions. Typically, if the question occurs in the first 10 minutes of class, it is graded. Later in the class, they are not.

C. Grading

<i>Assignment</i>	<i>points</i>
Exam 1	100
Exam 2	100
Exam 3 – final exam	150
Clicker questions	80
TOTAL	430

<i>Range</i>	<i>Grade</i>
100.00-92.50	A
92.49-90.00	A-
89.99-87.50	B+
87.49-82.50	B
82.49-80.00	B-
79.99-77.50	C+
77.49-72.50	C
72.49-70.00	C-
69.99-67.50	D+
67.49-62.50	D
62.49-60.00	D-
<60.00	F

D. Course Outline

<i>Chapter</i>	<i>Topic</i>	<i>Dates</i>
8	Nucleotides and Nucleic Acid Structure	Week 1
9	DNA based information technologies	Week 2
24	Genes and Chromosomes	Week 3-4
25	DNA metabolism	Week 4-5
26	RNA metabolism	Week 5-6
27	Protein Metabolism	Week 7-8
28	Regulation of Gene Expression	Week 9-10