Syllabus
Chemistry 300 – Elementary Biochemistry
CRN 50237

MWF 9:30 - 10:20 am, Newton Hall 203

Lecturer: Dr. Eric Helms
Office: Greene 323
Phone: 245-5927

Office Hours: TR 10 – 12, W 2 – 4
E-mail address: helms@geneseo.edu

Course Description:
This course is intended to be a survey of the chemistry of living organisms. Topics studied include enzymes and enzyme kinetics, proteins, nucleic acids, oxidative phosphorylation, photosynthesis, metabolism of carbohydrates, lipids, and nitrogen-containing compounds.

Required Texts:

Additional Sources:
The publisher maintains an excellent web site for the text. It can be found at the following URL:


The CD-ROM that comes with your text also will be of great value to you in this class. Much of what is on the web site is also on the CD. The text makes reference to the material on the CD at various places in each chapter – I highly recommend that you make use of the additional exercises and review material provided as a way to enhance your learning in this course.

Homework: READ THIS
Some homework is required. Periodically, problems will be assigned and must be completed by the due date or a penalty of 10% per day late will be assessed. Homework sets will be counted as 20% of your final grade.
Mid-term Exams:

Three mid-term exams will be given during the course of the semester. They will be held during the normal class time. **Since chemistry is a cumulative science, successful completion of each exam will require that you retain some material from earlier chapters.** The exam dates are as follows:

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<tr>
<th>Feb. 9th</th>
<th>March 9th</th>
<th>April 16th</th>
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Students with documented disabilities may request academic accommodations and adjustments as provided within federal law. All such requests should be made by first contacting the Office of Disability Services, located in Erwin 105D. The Office of Disability Services can also be reached at 245-5112 or tbuggieh@geneseo.edu via email. Information on services and campus policies can be found at the following URL: [http://www.geneseo.edu/~doc/otherareas/disability.shtml](http://www.geneseo.edu/~doc/otherareas/disability.shtml)

Final Exam:

The final exam will be comprehensive in its coverage of the material presented in the class. The final exam is scheduled for **Thursday May 3rd, 2007 at 8 – 11 am.**

Grading Policy:

Your grade in this course will be determined by the following:

- Homework: 20% of your grade
- Midterm Exams: 60% of your grade
- Final exam: 20% of your grade

Grades will be based on the weighted percentage of the total points you scored in the course. **There will be no curve.** Your letter grade will be determined as outlined below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>100 – 93</td>
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<tr>
<td>A-</td>
<td>92 – 90</td>
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<tr>
<td>B+</td>
<td>89 – 87</td>
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<tr>
<td>B</td>
<td>86 – 83</td>
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<td>69 – 60</td>
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<td>59 – 0</td>
<td>E</td>
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**Assignments and exams will only be reviewed for a complete reevaluation for 2 weeks from the date it is handed back to you. Only assignments and exams originally completed in pen will be accepted for re-grades.**
Course Outline:

The following is highly approximate and subject to change during the semester. In other words, if we don't cover material before a test, it will not be on the test no matter what this schedule says. Conversely, we could also cover more than is indicated by this schedule.

Ch. 1  The Chemical Basis of Life  January 17, 19 & 22
Ch. 2  Aqueous Chemistry  January 24, 26 & 29
Ch. 3  From Genes to Proteins  Jan. 31, February 2, 5, & 7

EXAM 1  February 9th, 9:30-10:20 am

Ch. 4  Myoglobin and Hemoglobin: A Study of Protein Structure and Function  February 12, 14 & 16
Ch. 6  Chymotrypsin: A Model Enzyme  February 19 & 21
Ch. 7  Enzyme Kinetics and Inhibition  Feb 23, 26 & 28
Ch. 8  Biological Membranes  March 2, 5 & 7

EXAM 2  March 9th, 9:30-10:20 am

Ch. 9  Overview of Mammalian Metabolism and Free Energy  March 19 & 21
Ch.10  Glucose Metabolism  Mar 23, 26, 28 & 30
Ch.11  The Citric Acid Cycle  April 2, 4 & 6
Ch.12  Oxidative Phosphorylation  April 9, 11 & 13

EXAM 3  April 16th, 9:30-10:20 am

Ch.14  Lipid Metabolism  April 18, 20 & 23
Ch.16  Regulation of Mammalian Fuel Metabolism  April 25, 27 & 30

FINAL EXAM  May 3rd, 8 – 11 am