

### Advanced Biochemistry

#### Prerequisites:

CHEM 321

#### Lecture:

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#### Required Textbook:

Lehninger Principles of Biochemistry, 5th Edition, David L. Nelson, Michael M. Cox, W. H. Freeman & Co.

#### Course Description:

This course will discuss the coordinating biochemistry component of metabolism and its pathways. Topics addressed include:

#### Course Goals:

- Develop an overview of the biochemical basis of biosynthesis and underlying regulation of enzymes and receptors.

#### Learning Outcomes

1. Understand biosynthetic relationships of amino acids, lipids, and nucleic acids.
2. Compare and contrast the synthesis of these biomolecules.

#### Instructional Methods:

The teaching methods employed in this course will consist of lectures by the instructor.

### Grading/Evaluation

Exams: There will be 4 term exams (100 points each) and a final exam.

Participation: Class participation in the form of discussion will be included in the final grade.

The overall grade will be based upon a total of 400 points.

The overall

Exam I 100 Points

Exam II 100 Points

Exam III 100 Points

Exam IV 100 Points

Final Exam: 100 Points

### Course Policies

Attendance

Exams

Coursework

Participation

Class Participation

### Ethical Considerations: The Chemist

Plagiarism

Plagiarism is defined as the use of "other" intellectual property without

Support Services

Support services will be provided

1	Chapter 1	Introduction
2	Chapter 2	Chemical Equilibrium
3	Chapter 3	Thermodynamics
4	Chapter 4	Phase Equilibria
5	Chapter 5	Phase Equilibria
6	Chapter 6	Phase Equilibria
7	Chapter 7	Phase Equilibria
8	Chapter 8	Phase Equilibria
9	Chapter 9	Phase Equilibria
10	Chapter 10	Phase Equilibria
11	Chapter 11	Phase Equilibria
12	Chapter 12	Phase Equilibria
13	Chapter 13	Phase Equilibria
14	Chapter 14	Phase Equilibria
15	Chapter 15	Phase Equilibria
16	Chapter 16	Phase Equilibria
17	Chapter 17	Starvation
18	Chapter 17	Bleeding
19	Chapter 18	Wastewater Cycle
20	Chapter 18	Protein Purification
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100	Chapter 18	Protein Purification

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