



STARK STATE COLLEGE

GENERAL SYLLABUS

Course Information

Course Name: Biochemistry I
Course Number: CHM243

Required Materials

Textbook(s): D. Appling, S. Anthony-Cahill, C. Matthews, **Biochemistry: Concepts and Connections, 2nd edition**, Copyright 2019 by Pearson Education, Inc. + Mastering Chemistry Online Homework.

Required Readings: Case study and project reading will be provided

Additional Materials: None

Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

| Week | Chapter/Topic/Lab |
|------|---|
| 1 | Chapter 1: Biochemistry and the Language of Chemistry |
| 2 | Chapter 2: The Chemical Foundation of Life: Weak Interactions in the Aqueous Environment |
| 3 | Chapter 3: The Energetics of Life Unit 1 Exam |
| 4 | Chapter 5 Introduction to Proteins: The Primary Level of Protein Structure |
| 5 | Chapter 6: 3D Structure of Proteins |
| 6 | Chapter 7: Protein Function and Evolution |
| 7 | Chapter 8: Enzymes: Biological Catalysts Unit 2 Exam |
| 8 | Chapter 9: Carbohydrates |
| 9 | Chapter 10: Lipids, Membranes, and Cellular Transport |
| 10 | Chapter 11: Chemical Logic of Metabolism |
| 11 | Chapter 11: Chemical Logic of Metabolism Unit 3 Exam |
| 12 | Chapter 12: Carbohydrate Metabolism Chapter 13: The Citric Acid Cycle |
| 13 | Chapter 14: Electron Transport, Oxidative Phosphorylation and Oxygen Metabolism |
| 14 | Chapter 14: Electron Transport, Oxidative Phosphorylation and Oxygen Metabolism Unit 4 Exam |

| Week | Chapter/Topic/Lab |
|------|--|
| 15 | Chapter 16: Lipid Metabolism Chapter 17: Interorgan and Intracellular Coordination of Energy Metabolism |
| 16 | Final Exam |

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| | Final Exam |