| Schedule of Lectures and Labs (Tenative) | | | | Readings | Chem 4841 Lab |
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| | | | | | |
| Summer Classes begin June 22, 2009 | | | | | |
| Day 1 | June | 22 | Intro Biology, Properties of Water, Intermolecular Interactions | V&V Ch. 1-2 | |
| Day 2 | | 23 | Ions, Acids, Bases, Buffers | V&V Ch. 2 | Pipetting |
| Day 3 | | 24 | Thermodynamics | V&V Ch. 3 | |
| Day 4 | | 25 | Lipids, membranes, Quiz 1 | V&V Ch. 12 | Buffers |
| Day 5 | | 29 | Exam 1 | | |
| Day 6 | | 30 | Lipid Metabolism | V&V Ch. 25 | Caffeine Case |
| Day 7 | July | 1 | Carbohydrates, Polysaccharides | V&V Ch. 11 | |
| Day 8 | | 2 | Nucleic Acids, Quiz 2 | V&V Ch. 5 | Polypeptide Structure |
| Day 9 | | 6 | Exam 2 | | |
| Day 10 | | 7 | Translation, Amino acids, Polypeptides | V&V Ch. 4,6,7,9,32 | Protein Assays |
| Day 11 | | 8 | Protein sequencing, Electrophoresis, Chromatography | V&V Ch. 6, 7 | |
| Day 12 | | 9 | Hemoglobin, Quiz 3 | V&V Ch.10 | SDS-Page |
| Day 13 | | 13 | Exam 3 | | |
| Day 14 | | 14 | Self-assembly, ECM, Structural Proteins | Case Study | |
| Day 15 | | 15 | Protein Synthesis, 1º, 2º, 3º Structure | V&V Ch.8 | |
| Day 16 | | 16 | Intro to Enzymes, Serine Proteases, Quiz 4 | V&V Ch. 13,14,15 | SDS-Page |
| Day 17 | | 20 | Exam 4 | | |
| Day 18 | | 21 | Enzyme kinetics, inhibition | V&V Ch. 14 | Biodiesel |
| Day 19 | | 22 | Glycolysis | V&V Ch. 17 | |
| Day 20 | | 23 | Gluconeogenesis, Regulation of glycolysis, Quiz 5 | V&V Ch. 17,23 | DNA Isolation |
| Day 21 | | 27 | Exam 5 | | |
| Day 22 | | 28 | Citric Acid Cycle I | V&V Ch. 21 | Checkout/Clean |
| Day 23 | | 29 | Citric Acid Cycle II | V&V Ch. 21 | |
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| Classes End, Wed. July 29 | | | | | |
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| Review Day, July 30 | | | | | |
| Final Exam, 11:20-1:20, Friday, July 31 | | | | | |
| Text: Biochemistry. Voet and Voet, 3rd ed. | | | | | |
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## Chapter Menu


Chapter 1: Life

Chapter 2: Aqueous Solutions

Chapter 3: Thermodynamic Principles: A Review

Chapter 4: Amino Acids

Chapter 5: Nucleic Acids, Gene Expression, and Recombinant DNA Technology

Chapter 6: Techniques of Proteins and Nucleic Acids

Chapter 7: Covalent Structures of Proteins and Nucleic Acids

Chapter 8: Three-Dimensional Structures of Proteins

Chapter 9: Protein Folding, Dynamics, and Structural Evolution

Chapter 10: Hemoglobin: Protein Function in Microcosm

Chapter 11: Sugars and Polysaccharides

Chapter 12: Lipids and Membranes

Chapter 13: Introduction to Enzymes

Chapter 14: Rates of Enzymatic Reactions

Chapter 15: Enzymatic Catalysis

Chapter 16: Introduction to Metabolism

Chapter 17: Glycolysis

Chapter 18: Glycogen Metabolism

Chapter 19: Signal Transduction

Chapter 20: Transport through Membranes

Chapter 21: Citric Acid Cycle

Chapter 22: Electron Transport and Oxidative Phosphorylation

Chapter 23: Other Pathways of Carbohydrate Metabolism

Chapter 24: Photosynthesis

Chapter 25: Lipid Metabolism

Chapter 26: Amino Acid Metabolism

Chapter 27: Energy Metabolism: Integration and Organ Specialization

Chapter 28: Nucleotide Metabolism

Chapter 29: Nucleic Acid Structures

Chapter 30: DNA Replication, Repair, and Recombination

Chapter 31: Transcription

Chapter 32: Translation

Chapter 33: Viruses: Paradigms for Cellular Function

Chapter 34: Eukaryotic Gene Expression