

Exam 3 and Final Exam Video Tutorials and Activities

Submit this Table of Contents (TOC) with your video tutorial lecture notes and completed activity packets at the beginning of the final exam. The materials need to be organized according to the TOC for FULL credit. Refer to the Video/Activity grading rubric. **Exam 3 is based on the following course materials.** It will be helpful to keep your course materials organized using this TOC.

____ Proteins and Enzymes Part 1: Amino Acids (10:03) Video Tutorial Lecture Outlines
____ Proteins and Enzymes Part 3: Overview of Protein Structure (5:40) Video Tutorial Lecture Outlines
____ Proteins and Enzymes Part 4: The Primary Structure of Proteins (14:13) Video Tutorial Lecture Outlines
____ Proteins and Enzymes Part 5: Secondary Structure of Proteins (7:35) Video Tutorial Lecture Outlines
____ Proteins and Enzymes Part 6: Tertiary Structure of Proteins (12:39) Video Tutorial Lecture Outlines
____ Proteins and Enzymes Part 7: Quaternary Structure of Proteins (7:57) Video Tutorial Lecture Outlines

____ Protein Structure and Function Activity

____ Introduction to Proteins, Carbohydrates, Lipids and Bioenergetics (16:15) Video Tutorial Lecture Notes
____ Chirality (31:16) Video Tutorial Lecture Notes
____ Proteins and Enzymes Part 2: Chirality and Amino Acids (19:33) Video Tutorial Lecture Notes
____ Proteins and Enzymes Part 8: Introduction to Enzymes (14:54) Video Tutorial Lecture Notes
____ Proteins and Enzymes Part 9: Enzyme Inhibition (14:56) Video Tutorial Lecture Notes
____ Proteins and Enzymes Part 10: Enzyme Classification & Reaction Catalysts (32:20) Video Tutorial Lect Notes
____ Proteins and Enzymes Part 11: Enzyme Cofactors (7:23) Video Tutorial Lecture Notes

____ Proteins: Chirality and Enzymes Activity

____ Carbohydrates Part 1: introduction and Monosaccharides (32:46) Video Tutorial Lecture Notes
____ Carbohydrates Part 2: Stereochemistry of Monosaccharides (8:47) Video Tutorial Lecture Notes
____ Carbohydrates Part 3: Disaccharides and Glycosidic Bonds (23:29) Video Tutorial Lecture Notes
____ Carbohydrates Part 4: Polysaccharides(5:28) Video Tutorial Lecture Notes

____ Carbohydrates: Structure and Function Activity

____ Carbohydrates Part 5: Catabolism – Hydrolysis and Glycolysis (29:48) Video Tutorial Lecture Notes
____ Carbohydrates Part 6: Other Metabolic Roles of Glucose & Ketone Bodies (14:22) Video Tutorial Lecture Notes

____ Carbohydrates: Metabolism Activity

____ Lipids Part 1: Fatty Acids, Fats, and Oils (22:21) Video Tutorial Lecture Notes
____ Lipids Part 2: Membrane Lipids (16:03) Video Tutorial Lecture Notes
____ Lipids Part 3: Transport across Cell Membranes (7:52) Video Tutorial Lecture Notes
____ Lipids Part 4: Cholesterol (5:29) Video Tutorial Lecture Notes
____ Lipids Part 5: Eicosanoids (6:40) Video Tutorial Lecture Notes

____ Lipids: Structure and Function Activity

____ Lipids Part 6: Bile Salts and Lipoproteins (9:26) Video Tutorial Lecture Notes
____ Lipids Part 7: Fat Catabolism (19:12) Video Tutorial Lecture Notes

____ Lipids: Metabolism Activity

____ Metabolism and Bioenergetics Part 1: Intro and Acetyl CoA (8:45) Video Tutorial Lecture Notes
____ Metabolism and Bioenergetics Part 2: The Citric Acid Cycle (18:48) Video Tutorial Lecture Notes
____ Metabolism and Bioenergetics Part 3: Electron Transport Chain & Oxidative Phosphorylation (30:31)
Video Tutorial Lecture Notes

____ Metabolism and Bioenergetics: the CAC and ETC Activity

____ Metabolism and Bioenergetics Part 4: Reduced Coenzymes and ATP (13:37) Video Tutorial Lecture Notes
____ Metabolism and Bioenergetics Part 5: Reaction Energies (34:55) Video Tutorial Lecture Notes

____ Metabolism and Bioenergetics: Reaction Energies Activity

____ Nucleic Acids Part 1: Intro and Nucleotides (17:01) Video Tutorial Lecture Notes
____ Nucleic Acids Part 2: DNA (22:33) Video Tutorial Lecture Notes
____ Nucleic Acids Part 3: RNA and Protein Synthesis (22:15) Video Tutorial Lecture Notes
____ Nucleic Acids Part 4: Genetic Mutations (5:02) Video Tutorial Lecture Notes

____ Nucleic Acids Activity

The following course materials will be included in Final Exam Part 3.

____ Nuclear Chemistry Part 1: Nuclear Structure Review and Intro to Nuclear Chemistry (14:43)
Video Tutorial Lecture Notes

____ Nuclear Chemistry Part 2: Nuclear Reactions (20:24) Video Tutorial Lecture Notes

____ Nuclear Chemistry Part 3: Half Lives (14:27) Video Tutorial Lecture Notes

____ Nuclear Chemistry Part 4: Biological Effects of Ionizing Radiation (18:42) Video Tutorial Lecture Notes

____ Nuclear Chemistry Part 5: Nuclear Medicine (3:56) Video Tutorial Lecture Notes

____ Nuclear Chemistry Part 6: Fusion vs Fission (12:06) Video Tutorial Lecture Notes

____ Nuclear Chemistry Activity