

Exam 2 Video Tutorials and Activities

Submit this Table of Contents (TOC) with your video tutorial lecture notes and completed activity packets at the beginning of lecture for exam 2. The materials need to be organized according to the TOC for FULL credit. Refer to the Video/Activity grading rubric. **Exam 2 is based on the following course materials.** It will be helpful to keep your course materials organized using this TOC.

- _____ Hydrocarbons Part 1: Structural Formulas (26:26) Video Tutorial Lecture Notes
- _____ Hydrocarbons Part 2 – Recognizing Isomers (31:49) Video Tutorial Lecture Notes

- _____ Hydrocarbons and their Structure Activity

- _____ Hydrocarbons Part 3 – IUPAC Nomenclature of Hydrocarbons (31:45) Video Tutorial Lecture Notes
- _____ Hydrocarbons Part 4 – Structure and IUPAC Nomenclature Review (16:33) Video Tutorial Lecture Notes

- _____ Hydrocarbon Nomenclature Activity

- _____ Organic Functional Groups Part 1: Introduction (23:43) Video Tutorial Lecture Notes
- _____ Organic Functional Groups Part 2: IUPAC Nomenclature (32:16) Video Tutorial Lecture Notes
- _____ Organic Functional Groups Part 3: Esters, Thioesters, & Phosphoesters (7:48) Video Tutorial Lecture Notes
- _____ Organic Functional Groups Part 4: Naming Ethers, Phenols, & Esters (9:50) Video Tutorial Lecture Notes

- _____ Organic Functional Groups Intro and Nomenclature Activity

- _____ Organic Functional Groups Part 5: IMFs and H₂O Solubility (14:07) Video Tutorial Lecture Notes
- _____ Organic Functional Groups Part 6: IMFs and Boiling Points (8:40) Video Tutorial Lecture Notes
- _____ Organic Functional Groups Part 7: Combustion Reactions (7:12) Video Tutorial Lecture Notes
- _____ Organic Functional Groups Part 8: Carboxylic Acids: Acid-Base Chem & H₂O Solubility (11:56) Vid Tut Lect Notes
- _____ Organic Functional Groups Part 9: Amines: Acid-Base Chemistry & H₂O Solubility (13:11) Vid Tut Lect Notes

- _____ Organic Functional Groups: Physical Properties and Intro to Chemistry Activity

- _____ Chemical Reaction Part 1: Balancing Reactions (11:43) Video Tutorial Lecture Notes
- _____ Chemical Reaction Part 2: Collision Theory (7:58) Video Tutorial Lecture Notes
- _____ Chemical Reaction Part 3: Thermodynamics (Reaction Energy) (26:04) Video Tutorial Lecture Notes
- _____ Chemical Reaction Part 4: Kinetics (Reaction Rates) (15:19) Video Tutorial Lecture Notes

- _____ Chemical Reaction Basics Activity

- _____ Acid & Bases Part 1: Intro with Predicting the Products (12:06) Video Tutorial Lecture Notes
- _____ Acid & Bases Part 2: Inorganic and Organic Acid Nomenclature (24:50) Video Tutorial Lecture Notes
- _____ Acid & Bases Part 3: Bronsted-Lowry Definition & Conjugate Acid Base Pairs (11:46) Video Tutorial Lecture Notes
- _____ Acid & Bases Part 4: Equilibrium Rxns & Le Chatlier's Principle (46 :47) Video Tutorial Lecture Notes

- _____ Acids & Bases Part 1 Activity

- _____ Acid & Bases Part 5: Kw [H₃O⁺] & [OH⁻] Calcs (13:32) Video Tutorial Lecture Notes
- _____ Acid & Bases Part 6: pH Calculations (13:49) Video Tutorial Lecture Notes
- _____ Acid & Bases Part 7: Buffers (10:38) Video Tutorial Lecture Notes
- _____ Acid & Bases Part 8: Effects of Cellular pH on Carboxylic Acids, Amines & Phosphates (5:47) Vid Tut Lect Notes
- _____ Acid & Bases Part 9: Serial Dilution and pH (14:02) Video Tutorial Lecture Notes

- _____ Acids & Bases Part 2 Activity

- _____ Rxns of Organic Functional Grps Part 1: Intro & Acid Base Review (18:37) Video Tutorial Lecture Notes
- _____ Rxns of Organic Functional Grps Part 2: Redox Intro (36:22) Video Tutorial Lecture Notes
- _____ Rxns of Organic Functional Grps Part 3: Redox of Alcohols & Carbonyls (17:56) Video Tutorial Lecture Notes
- _____ Rxns of Organic Functional Grps Part 4: Hydration-Dehydration Rxns (9:36) Video Tutorial Lecture Notes

- _____ Reactions of Organic Functional Groups Part 1 Activity

- _____ Rxns of Organic Functional Grps Part 5: Acyl Transfer Rxns (24:37) Video Tutorial Lecture Notes
- _____ Rxns of Organic Functional Grps Part 6: Phosphoryl Grp Transfer Rxns (9:36) Video Tutorial Lecture Notes
- _____ Rxns of Organic Functional Grps Part 7: Coenzymes & Biochemical Redox Rxns (17:45) Video Tutorial Lect Notes

- _____ Reactions of Organic Functional Groups Part 2 Activity