

Chapter 11 – Enzyme Catalysis

Objective	In-text reading	Pre-class materials/activities	In-class materials/activities	Practice problems from text
1. Apply your understanding of intermolecular forces to rate enhancement.	11.1, 11.2	Ch. 11 Enzyme Catalysis (Hayden Lecture) Enzymes (Video)	S9 – Enzyme Catalysis	4 th Ed: 1, 11
2. Explain general acid-base catalyzed reaction and apply to enzyme catalyzed reactions.	11.3	Ch. 11 Enzyme Catalysis (Hayden Lecture) How enzymes work (Video)	S9 – Enzyme Catalysis	4 th Ed: 3, 9, 13
3. Generalize your understanding of rate enhancement of an acid/base catalyzed reaction to other types of enzyme-mediated catalysis.	11.4, 11.5	Ch. 11 Enzyme Catalysis (Hayden Lecture) How enzymes work (Video)	S9 – Enzyme Catalysis	4 th Ed: 15, 19, 21, 23, 27 S9 Post Skill Activity: 2, 3
4. Integrate your understanding of rate enhancement and rate determining step in a ΔG versus reaction coordinate diagrams.	11.2	Ch. 11 Enzyme Catalysis (Hayden Lecture) Energy Diagrams, Catalysis and Reaction Mechanisms (video)	S9 – Enzyme Catalysis	4 th Ed: 5 S9 Post Skill Activity: 1