

Chapter 12 – Enzyme Kinetics

Objective	In-text reading	Pre-class materials/activities	In-class materials/activities	Practice problems from text
1. Be able to articulate and apply what the enzyme parameters of K_M , V_{max} , k_{cat} and k_{cat}/K_M tell us about an enzyme.	12.1	Ch. 12 – Enzyme Kinetics (Hayden Lecture) Enzyme Kinetics (MIT Video)	S10 – Enzyme Kinetics	4 th Edition: 9, 13, 14, 17, 23 S10: Post Activity: 1 thru 4
2. Know the Michaelis-Menten rate equation and be able to utilize the rearranged versions of the Michaelis-Menten equation to determine the values of K_M and V_{max} .	12.1	Ch. 12 – Enzyme Kinetics (Hayden Lecture) Enzyme Kinetics (MIT Video)	10 – Enzyme Kinetics	4 th Edition: 11, 15 S10: Post Activity: 1 thru 4
3. Use K_M and V_{max} values to discuss qualities of enzymes related to their catalytic properties.	12.1	Ch. 12 – Enzyme Kinetics (Hayden Lecture) Kinetic Constants: K_M and V_{max} (video)	10 – Enzyme Kinetics	4 th Edition: 19, 20 S10: Post Activity: 1 thru 4