

# Ahvaz Jundishapur University of Medical Sciences

**Course Title:** Enzymology

**Field and Level:** Master's in Biochemistry

**Faculty:** Medicine

**Academic Year:** 2025-2026

**Prerequisite:** General Biochemistry

**Credits:** 2 **Semester:** Fall

**Instructor Group:** Dr. Ghasemian / Dr. Mohammadzadeh / Dr. Igeder ,

**Class Day and Time:** Sunday 10-12

<b>Instructor Name</b>	<b>Teaching Method</b>	<b>Learner Activities</b>	<b>Outline (Concepts to be Taught)</b>	<b>Date</b>	<b>Session</b>
<b>Dr. Rashidi</b>			<b>History and Classification of Enzymes</b>		<b>First</b>
<b>Dr. Rashidi</b>			<b>Enzyme Structure and Coenzymes</b>		<b>Second</b>
<b>Dr. Ghasemian</b>			<b>Enzyme Kinetics and Examples of Chemical Reactions</b>		<b>Third</b>
<b>Dr. Ghasemian</b>			<b>Enzyme Inhibitors and Their Mechanism of Action</b>		<b>Fourth</b>
<b>Dr. Ghasemian</b>			<b>How to Study Enzyme Activity and Determine its <math>K_m</math></b>		<b>Fifth</b>
<b>Dr. Mohammadzadeh</b>			<b>Regulatory Enzymes and Their Characteristics</b>		<b>Sixth</b>
<b>Dr. Mohammadzadeh</b>			<b>Mechanism of Enzyme Regulation</b>		<b>Seventh</b>
<b>Dr. Mohammadzadeh</b>			<b>Muscle, Cardiac, and Bone Enzymes</b>		<b>Eighth</b>
<b>Dr. Mohammadzadeh</b>			<b>Digestive Enzymes and Clinical Applications</b>		<b>Ninth</b>
<b>Dr. Mohammadzadeh</b>			<b>Liver Enzymes and Their Clinical Applications</b>		<b>Tenth</b>
<b>Dr. Igeder</b>			<b>Methods for Isolation and Purification of Enzymes from Biological Samples and Study of Their Activity</b>		<b>Eleventh</b>
<b>Dr. Igeder</b>			<b>Continuation: Methods for Isolation and Purification of Enzymes from Biological Samples and Study of Their Activity</b>		<b>Twelfth</b>
<b>Dr. Igeder</b>			<b>Various Methods for Measuring Enzyme Activity and Its Amount in Biological Fluids</b>		<b>Thirteenth</b>
<b>Dr. Igeder</b>			<b>Various Methods for Measuring Enzyme Activity</b>		<b>Fourteenth</b>

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			<b>and Its Amount in Biological Fluids</b>		
<b>Dr. Faridoon Nejad</b>			<b>Introduction to Software for Calculating Enzyme Kinetics</b>		<b>Fifteenth</b>
<b>Dr. Faridoon Nejad</b>			<b>Application of Enzymes in Industry and Launching Knowledge-Based Businesses</b>		<b>Sixteenth</b>