

Course Title	<b>Experimental techniques in Biochemistry (1)</b>	
Course Code	<b>BC5105</b>	
Academic Year	<b>2016/2017</b>	
Coordinator	<b>Prof. Ehab M. M. Ali</b>	
Other Staff	<b>Dr Kareem</b>	
Semester	<b>Semester 1</b>	
Level	<b>Level one</b>	
Pre-Requisite		
Course Delivery	<b>Lecture</b>	<b>14 x 1h lectures 12 x 3 h practical</b>
Parent Department	<b>Chemistry Department</b>	

## Contents

	<b>Experimental techniques in Biochemistry (1)</b>
Lecture 1	Principles of Chromatography techniques
Lecture 2	Paper Chromatography
Lecture 3	Gas liquid Chromatography
Lecture 4	liquid liquid Chromatography
Lecture 5	High performance liquid Chromatography
Lecture 6	Principles of electrophoresis techniques
Lecture 7	Types of liquid phase electrophoresis techniques
Lecture 8	Mid term
Lecture 9	Types of gel phase electrophoresis
Lecture 10	Dialysis and biological membranes
Lecture 11	Ultracentrifugation
Lecture 12	Molecular weight determination by different methods
Lecture 13	Southern blot
Lecture 14	Northern blot
<b>Part</b>	<b>2</b>
<b>Practical</b>	
Week 1	Enzymes introduction
Week 2	Standard curve of glucose and determination of sucrose activity using iodometric
Week 3	catalase activity and standard curve of hydrogen peroxide using titration method
Week 4	Determination of urease activity using colorimetric method
Week 5	Effect of time on catalase using colorimetric method
Week 6	sucrase activity using DNS method
Week 7	Xanthine oxidase activity and Effect of enzyme concentration on xanthine oxidase
Week 8	Effect of pH on catalase
Week 9	Effect of temperature and determination of activation energy of alkaline phosphatase
Week 10	Effect of substrate concentration on initial velocity of catalase (determination of $K_m$ and $V_{max}$ )
Week 11	Determination of lipase activity
Week 12	Revision