



STANDARD COURSE OUTLINE

Annex 3



Hashemite University	 	Recombinant DNA Technology (1801042325)
Faculty of Science		Pre-requisite: Molecular Biology (2401042322)
Department of Biology and Biotechnology		
Course Syllabus		
Course Information		
Lecture's Time	09:30-10:30 am (Thurs.)	
Lecture Room	Bio 241	
Instructor	DR. S.R. Maloul	
Office Location	Bio 107	
Office Hours	10:30-12:30 am (Thurs.)	
Text Book: Gene Cloning and DNA Analysis: An Introduction, 6 th ed., T. A. Brown, 2010, Wiley-Blackwell.		
References(s)	Molecular Cloning: A laboratory manual 3 rd ed., J. Sambrook & D. Russell, Cold Spring Harbor Laboratory Press, 2001.	

Grading Policy:

Theory

1 st Exam	20 %
2 nd Exam	20 %
Other	__%
Final Exam	20%

Practical

Quizzes	__%
Midterm	20%
Reports	__%
	20%

Course Objectives
1. Provide 'hands on' experience in performing basic recombinant DNA techniques. 2. Introduce students to the theory behind each technique and to describe common applications of each methodology in biological research.
Teaching and Learning Methods
Lectures, Power point Slides, Films, and Articles.

Course Contents

Week	Topic
1	Orientation (Theory and Laboratory Practice)
2	Importance of Gene Cloning
3	Vehicles: Plasmids
4	Vehicles: Bacteriophages
5	Purification of DNA from Living Cells
6	Purification of DNA from Living Cells
7	Manipulation of Purified DNA
8	Manipulation of Purified DNA
9	Introduction of DNA into Living Cells
10	Cloning Vectors for E. coli
11	Cloning Vectors for Higher Organisms
12	Obtaining a Clone of a Specific Gene
13	Studying a Cloned Gene
14	Applications of Gene Cloning in Biotechnology
15	Final Laboratory Examination
16	Final Examination