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, 6th ed., T. A. Brown, 2010, Wiley-Blackwell.	
References(s)	Molecular Cloning: A laboratory manual 3rd ed., J. Sambrook & D. Russell, Cold Spring Harbor Laboratory Press, 2001.

Grading Policy:

Theory		**Practical**
1st Exam	20 %	Quizzes __%
2nd Exam	20 %	Midterm 20%
Other	__%	Reports __%
Final Exam	20%	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