STANDARD COURSE OUTLINE

Annex 3

Hashemite University		Course name and Number Biotechnology 1801042321
Faculty of Science		**Pre-requisite:** 1801042241
Department of Biology and Biotechnology	**Course Syllabus**	

Course Information	
Lecture's Time	M,W 10:0-11:30
Lecture Room	Biology building 121
Instructor	Prof. Abdul Latief Al-Ghzawi
Office Location	Bio 211 and 240
Office Hours	M,W 11:30-1:00
Text Book: Introduction to Biotechnology, William J. Thieman, and Michael A. Palladino. Pearson. 2013. 3rd edt.	
References(s)	Zimmer, M. (Ed.). (2023). *The Conversation on Biotechnology*. Johns Hopkins University Press. ISBN: 978-1-4214-4614-1. Biotechnology : an introduction, Ignacimuthu, S.(2008). Alpha Science International Ltd.,Oxford, U.K.

Grading Policy:

Theory		**Practical**	
1st Exam	30 %	Quizzes	__%
2nd Exam	30 %	Midterm	__%
Other	__%	Reports	__%
Final Exam	40%		__%

Course Objectives
This course aims to teach the students: This course covers the biological and technological principles of biotechnology including the utilization of organisms in industry, agriculture, medicine, and environment. The major techniques applied in biotechnology will be discussed. Aims: - Understanding of key concepts and techniques in biotechnology, including genetic engineering, fermentation, and cell culture. - Knowledge of applications of biotechnology in fields such as medicine, agriculture, and environmental science. - Ability to analyze and evaluate the ethical and social implications of biotechnology.
Teaching and Learning Methods
Face to Face

Course Contents

Week	Topic
1	Introduction to biotechnology
2	Classical Biotechnology
3	Modern Biotechnology
4	Basic principles of recombinant DNA technology
5	Proteins as products
6	Proteins as products
7	Microbial biotechnology
8	Microbial biotechnology
9	Plant biotechnology
10	Animal Biotechnology
11	Environmental Biotechnology

12	Environmental Biotechnology
13	Products of Biotechnology
14	Products of Biotechnology
15	Tools of Biotechnology
16	Final Examination