



**Jordan University of Science and Technology**  
**Faculty of Science & Arts**  
**Applied Biological Sciences Department**

BIO341 Molecular Genetics

First Semester 2017-2018

**Course Catalog**

3 Credit Hours. This course introduces you to the laws of heredity and the study of inherited traits. Topics include Mendelian and non-Mendelian inheritance, structure and function of chromosomes and genomes, biological variation resulting from recombination, mutation, and selection, and population genetics

**Text Book**

<b>Title</b>	Genetics: from Genes to Genomes
<b>Author(s)</b>	Hartwell, Hood, Goldberg, Reynolds, Silver
<b>Edition</b>	5th Edition
<b>Short Name</b>	1
<b>Other Information</b>	McGraw Hill

**Course References**

**Instructor**

Name	<b>Dr. OSAMAH BATIHA</b>
Office Location	Ph1L1, Ext 23466
Office Hours	Sun : 09:00 - 10:00 Mon : 11:00 - 12:30 Tue : 11:30 - 13:15 Wed : 09:30 - 11:30
Email	oybatiha@just.edu.jo

**Class Schedule & Room**

Section 1:  
Lecture Time: Sun, Tue, Thu : 10:30 - 11:30  
Room: D4202

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Genetics: the study of biological information	1 From 1
Week 2	Mendel's principles of heredity	2 From 1
Weeks 3, 4	Extensions to Mendel's laws	3 From 1
Week 5	The chromosome theory of inheritance	4 From 1
Weeks 6, 7	Linkage, recombination, and the mapping of genes on chromosomes	5 From 1
Week 8	DNA structure, replication, and recombination	6 From 1
Weeks 9, 10	Mutation	7 From 1
Weeks 11, 12	Gene Expression	8 From 1
Weeks 13, 14	Digital analysis of genomes	9 From 1

Mapping of Course Objectives to Program Student Outcomes <sup>1</sup>	Assessment method
Understand the basics of inheritance [1A]	First exam
Understand chromosome and gene structure and function [1A]	
Apply probability rules to predict the risk of reoccurrence of genetic traits and diseases [1A, 1C]	
Understand how genetic and physical maps were constructed [1A]	
Understand and apply genetic tools to test/resolve genetic problems [1A, 1C, 1D]	

Relationship to Program Student Outcomes (Out of 100%)					
A	B	C	D	E	F
80		15	5		

Evaluation	
Assessment Tool	Weight
First exam	30%

Policy	
class Attendance	Your class attendance is mandatory. Absences in excess of 20% of the total lecture hours will result in your being dropped from the course with a failing grade
makeup Exams	Make-up exam appeals should be filed within one week of the missed exam
cell phones	Cell phones are completely prohibited during examinations according to the university regulations i.e. you are not allowed to bring your phone into the exam hall
cell phones	Cell phones must be turned off during lectures. No incoming or outgoing calls or text messages are allowed

cheating	Unethical conduct, including cheating during examinations, will result in punishment by the university administration
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