



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

BIO411 Developmental Biology

First Semester 2017-2018

Course Catalog

3 Credit Hours. The developmental biology course emphasizes three major concepts; (1) The classical methods of analysis that covers the series of embryonic stages from gametogenesis to histogenesis; (2) The genetic and molecular analysis of development and (3) Combining the classical and modern types of analysis.

Text Book

Title	Analysis of Biological Development
Author(s)	Kalthoff, K.
Edition	2nd Edition
Short Name	1
Other Information	

Course References

Instructor

Name	Prof. Ahmad Bateiha
Office Location	PH1L0
Office Hours	Sun : 10:30 - 11:30 Mon : 09:00 - 10:00 Tue : 10:30 - 11:30 Tue : 12:30 - 13:30 Thu : 10:30 - 11:30 Thu : 12:30 - 13:30
Email	betieha@just.edu.jo

Class Schedule & Room

Section 1:

Lecture Time: Sun, Tue, Thu : 09:30 - 10:30

Room: NF27

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	Introduction	
Week 1	Overview of development	1 From 1
Week 3	Gametogenesis	3 From 1
Week 4	Fertilization	4 From 1
Week 5	Cleavage	5 From 1
Week 6	Cell fate, potency and determination	6 From 1
Week 7	Genomic equivalence and the cytoplasmic determinants	7 From 1
Week 8	Localized cytoplasmic determinants	8 From 1
Week 9	Gastrulation	10 From 1
Week 10	Neurulation and axis induction	12 From 1
Week 11	Ectoderm organs	13 From 1
Week 12	Endodermal and mesodermal organs	14 From 1

Mapping of Course Objectives to Program Student Outcomes¹

Assessment method

Recognize the main features distinguishing each stage of development in different animal models [1A]	
Know the differences between cell fate, potency and determination [1A]	
Comprehend the principle of genomic equivalence and the role of cytoplasmic determinants in development [1A]	
Understand the genetic and molecular basis of development [1A]	
Understand how each of the three germ-layers will differentiate to give different structures [1A]	
Write a summary and preparing a PowerPoint presentation to a project [1D]	

Relationship to Program Student Outcomes (Out of 100%)					
A	B	C	D	E	F
80			20		

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

Date Printed: 2017-11-28