



وكالة الجامعة للشؤون التعليمية  
البرامج الدراسية والتطوير

( 5 )

مختصر توصيف المقرر

Vertebrates

الفقاريات	:
BIOL-214	:
أحياء عامة BIOL-101	:
لا يوجد	:
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3	:
<b>Module Title:</b>	<b>Vertebrates</b>
<b>Module ID:</b>	<b>BIOL-214</b>
<b>Prerequisite (Co-requisite):</b>	General Biology, BIOL-101
<b>Co-requisite :</b>	N/A
<b>Course Level:</b>	3 <sup>rd</sup> level
<b>Credit Hours:</b>	3 Hours

### :(Course Information) \*

#### Module Description :

This course will examine origins, diversity, structure and function within and among the vertebrate classes (including fish, amphibians, reptiles, birds and mammals). We will consider the evolution of the vertebrate body plan and innovations associated with common organ systems (e.g., skeletal, muscular, digestive, sensory, etc.) shared by different taxa. In addition, we will consider specialization of form and function to the diverse ecology of vertebrates as well as the manner in which very different taxa cope with similar habitats and environmental demands.

#### Module Aims

#### أهداف المقرر:

1	Comprehend the basic phylogeny of the vertebrates and important transitions within the phylogeny.	1
2	Represent and interpret vertebrate phylogeny in the form of cladograms.	2

3	Recognize each vertebrate group and their major characteristics in terms of general lifestyles (morphology, physiology, ecology, and behavior).	3
4	Interpret vertebrate form and function and the selection pressures that have influenced these.	4
5	Understand basic biological and evolutionary principles and how they apply to the vertebrates.	5

### Learning Outcomes:

مخرجات التعليم:

1	Describe distinctive features of vertebrate taxa, including chordate taxa such as tunicates and cephalochordates.	1
2	Discuss the basic life processes of vertebrates, including movement, body support, homeostasis, circulation, gas exchange, reproduction, development, digestion, excretion and sensory perception.	2
3	Describe the evolutionary history of the vertebrates, and the important transitions between major taxa and clades.	3
4	Interpret the relationship between the form and function of vertebrates, and the selection pressures that have influenced their evolution.	4
5	Discuss the ecology, behavior, and diversity of vertebrates in relation to their survival and dominance in a variety of habitats in the world.	5

Course :

### Contents:

ساعات التدريس (Hours)	الأسابيع (Weeks)	(Subjects)
6	2	Vertebrate Taxonomy and Diversity Taxonomic Classifications
6	2	Chordates (ancestors - their characteristics – classification).
6	2	Fishes: Fish Diversity - Covering major groups
6	3	Ectotherms – Amphibians and Reptiles
6	3	Birds (ancestors - their characteristics – classification).
6	3	Mammals (ancestors - their characteristics – classification).

**Textbook and :**

**References:**

ISBN	Publishing Year	Publisher	اسم المؤلف (رئيسي) Author's Name	Textbook title
978-1680945157	2017	Arcler Press LLC	Dr. Nisha Dahiya	Vertebrate Zoology
	Publishing Year	Publisher	(رئيسي) Author's Name	Reference
978-0321773364	2012	Pearson	Harvey F. Pough	Vertebrate Life
978-1421400402	2011	Johns Hopkins University Press	Donald W. Linzey	Vertebrate Biology
978-0123750600	2010	Academic Press	Gerardo De Iuliis	The Dissection of Vertebrates

