جامعة المجمعة
Majmaah University

وكالة الجامعة للشؤون التعليمية
إدارة البرامج الدراسية والتطوير

نموذج (5)

مختصر توصيف المقرر

Invertebrate

اسم المقرر:	علم اللافقاريات
رقم المقرر:	BIOL-112
اسم ورقم المطلب السابق:	أحياء عامة BIOL-101
اسم ورقم المطلب المرافق:	لا يوجد
مستوى المقرر:	الثاني
الساعات المعتمدة:	3ساعات

Module Title:	**Invertebrate**
Module ID:	BIOL-112
Prerequisite (Co-requisite):	General Biology, BIOL-101
Co-requisite :	N/A
Course Level:	2nd level
Credit Hours:	3 Hours

معلومات المقرر * (Course Information):

وصف المقرر : Module Description

Through this course the student will demonstrate an understanding of taxonomy ,morphology, structure and function of the various higher invertebrate animals. In addition to the characteristic features, the form and function of representatives from the phyla :Mollusca, Annelida, Arthropoda and Echinodermata and other minor phyla will be reviewed. The role of invertebrates in ecosystems will be also emphasized to prepare students for the broader examination of ecology and population biology.

أهداف المقرر: Module Aims

1	provide the student with a solid foundation in the field of invertebrate zoology	1
2	understanding of invertebrate structure, ecology, life history and evolution.	2

3	learn about the myriad forms of invertebrates found across the globe, from the smallest animals (< 0.05mm) that live between sand grains, to the largest animals (>5m) that live in the deep ocean, and everything in between.	3
4	describe the Body Plan of each major taxon (i.e., identify all major anatomical organs and describe their function in reference to the entire animal and its environment)	4
5	The student will be able to describe the reproductive mode and form of development of exemplar animals in each major taxon (e.g., cleavage, gastrulation, larval stages)	5
6	The student will be able to identify all major (monophyletic) groups of invertebrates	6

Learning Outcomes: مخرجات التعليم:

1	Describe common and distinctive features of invertebrate phyla, including poriferans, cnidarians, platyhelminthes, nematodes, molluscs, annelids, arthropods, and echinoderms.	1
2	Discuss distinctive features of taxonomic classes within the phyla covered.	2
3	Explain phylogenetic relationships between the phyla covered.	3
4	Describe important concepts in invertebrate body structure and organization, including body symmetry, cephalization, body cavity, gut formation, segmentation.	4
5	Describe important biological processes in invertebrates, including locomotion, body support, reproduction, development, feeding, digestion, excretion, osmoregulation, circulation, respiration, sensory perception, behavior.	5
6	Discuss the ecological and economic importance of invertebrates.	6

Course Contents: محتوى المقرر:

ساعات التدريس (Hours)	عدد الأسابيع (Weeks)	قائمة الموضوعات (Subjects)
3	1	Course Introduction, Classification, Habitat
3	1	Protozoans
3	1	Phylum Porifera
3	1	Phyla Cnidaria and Ctenophora
3	1	Acoelomates
3	1	Pseudocoelomates

3	1	Phylum Annelida & Allied Taxa
3	1	Introduction to Phylum Arthropoda
3	1	Trilobites, Chelicerates
3	2	Crustacea, Insecta and others
3	1	Coelomate Protostomes
3	1	Phylum Molluska
3	1	Phylum Echinodermata
3	1	Invertebrate Chordates

الكتب المقرر والمراجع المساندة: Textbook and References:

ISBN	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم الكتاب المقرر Textbook title
978-1605353753	2016	Sinauer .Associates, Inc	Richard C. Brusca	Invertebrates
	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم المرجع Reference
978-0073524184	2014	McGraw-Hill Science	Jan Pechenik	Biology of the Invertebrates
978-1530670024	2016	CreateSpace Independent Publishing Platform	Ron Clouse	A Basic Glossary of Invertebrate Zoology
978-1539392408	2016	CreateSpace Independent Publishing Platform	Alan R Holyoak	Laboratory Exercises in Invertebrate Zoology