

Course E-Syllabus

1	Course title	General Zoology
2	Course number	5501253
3	Credit hours	3 hours
	Contact hours (theory, practical)	Theory
4	Prerequisites/corequisites	GB 102
5	Program title	Marine Biology
6	Program code	
7	Awarding institution	School of Basic and Marine Sciences
8	School	School of Basic and Marine Sciences
9	Department	Marine Biology
10	Level of course	Second year
11	Year of study and semester (s)	Second Year, First Semester 2020-2021
12	Final Qualification	
13	Other department (s) involved in teaching the course	
14	Language of Instruction	English
15	Teaching methodology	<input type="checkbox"/> Blended <input checked="" type="checkbox"/> Online
16	Electronic platform(s)	<input type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input checked="" type="checkbox"/> Zoom <input checked="" type="checkbox"/> Others E-leadning.....
17	Date of production/revision	

18 Course Coordinator:

Name: Dr. Maroof Khalaf
Office number: 3-2090450 ext. 35073
Phone number: 0791695905
Email: m.khalaf@ju.edu.jo

19 Other instructors:

Name: Prof. Dr. Maroof Khalaf
Office number: 3-2090450 ext. 35073
Phone number: 0791695905
Email: m.khalaf@ju.edu.jo

Name:
Office number:
Phone number:
Email:

۲۰ Course Description:

As stated in the approved study plan.

Introduction to the living animal continuity and evolution, principles of genetics, organic evolution, reproduction and development, diversity of animal life (structural patterns, classification and phylogeny, principles of nomenclatures); invertebrate and vertebrate animals; activity of life; behavior; animal environment and its influence on its distribution and adaptations.

۲۱ Course aims and outcomes:

- The course will provide the students with the basic understanding of the living animal continuity and evolution, reproduction and development, diversity of animal life (structural patterns, classification and phylogeny, principles of nomenclatures).
- invertebrate and vertebrate animals such as: Protozoan Groups; Sponges and Placozoans; Radiate Animals: Cnidaria and Ctenophora; Flatworms, Mesozoans and Ribbon Worms; Gnathiferans and Smaller Lophotrochozoans: Rotifera; Molluscs: Form and Function, Classes of Molluscs; Annelids and Allied Taxa: Phylum Annelida, Including Pogonophorans (Siboglinids), Phylum Echiura, Phylum Sipuncula; Smaller Ecdysozoans: Phylum Nematoda: Roundworms; Phylum Arthropoda: Trilobites, Chelicerates, and Myriapods; Subphylum Crustacea: Brief Survey of Crustaceans; Hexapods: Class Insecta; Hemichordates; Chordates: The Chordates, Five Chordate Hallmarks, Ancestry and Evolution, Subphylum Urochordata (Tunicata), Subphylum Cephalochordata, and Subphylum Vertebrata (Cranialia). Activity of life; behavior; animal environment and its influence on its distribution and adaptations.
- The topics covered in this course will allow the students to better comprehend other courses related to zoology and biochemistry courses

A- Aims:

General zoology course will focus on identifying and describing various taxa starting with Protozoa and ending with chordate.

The topics covered in this course will allow the students to better comprehend other courses related to vertebrate anatomy and Physiology courses.

B- Intended Learning Outcomes (ILOs):

Upon successful completion of this course, students will be able to:

- understand the living animal continuity and evolution, reproduction and development, diversity of animal life (structural patterns, classification and phylogeny)..
- To identify and describe invertebrate and vertebrate animals such as:
 - Protozoan Groups; Sponges and Placozoans;
 - Radiate Animals: Cnidaria and Ctenophora;
 - Flatworms, Mesozoans and Ribbon Worms;
 - Molluscs: Form and Function, Classes of Molluscs;
 - Annelids and Allied Taxa: Phylum Annelida, Including Pogonophorans (Siboglinids), Phylum Echiura,;
 - Smaller Ecdysozoans: Phylum Nematoda: Roundworms;
 - Phylum Arthropoda: Trilobites, Chelicerates, and Myriapods; Subphylum Crustacea: Brief Survey of Crustaceans; Hexapods: Class Insecta; Hemichordates; Chordates:
 - Phylum: Echinodermata
 - The Chordates, Five Chordate Hallmarks, Ancestry and Evolution, Subphylum Urochordata (Tunicata), Subphylum Cephalochordata, and Subphylum Vertebrata (Craniata).

ॡ. Topic Outline and Schedule:

Week	Lecture	Topic	Teaching Methods*/platform	Evaluation Methods**	References
1	1.1	Protozoan Groups - How Do We Define Protozoan Groups? - Form and Function -	Lectures Online, Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
	1.2	Protozoan Groups Major Protozoan Taxa - Phylum Euglenozoa	Lectures Online, Ppt, videos	Participation and quiz	Integrated Principles of Zoology.

	1.3	Protozoan Groups: Phylum Retortamonada and the Diplomonads	Lectures Online, Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
2	2.1	Protozoan Groups: Phylum Ciliophora: Paramecium	Lectures Online, Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
	2.2	Protozoan Groups: Phylum Dinoflagellata	Lectures Online Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
	2.3	Protozoan Groups: Phylum Apicomplexa: Plasmodium	Lectures Online, Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
3	3.1	Protozoan Groups: Phylum: Axostylata Parabasalids and Amebas	Lectures Online Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
	3.2	Phylum porifera: sponges Characteristics of Phylum Porifera:	Lectures Online, Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
	3.3	Phylum porifera: sponges Form and Function	Lectures Online Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
4	4.1	Phylum porifera: sponges Types of Canal Systems	Lectures Online, Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
	4.2	Phylum porifera: sponges Types of Cells in the Sponge:	Ppt, videos	Participation and quiz	Integrated Principles of Zoology.
	4.3	Phylum porifera: sponges Classification of sponges (Class Calcarea, Class Hexactinellida, Class Demospongiae	Lectures Online Ppt, videos,	Participation and home work	Integrated Principles of Zoology.
5	5.1	PHYLUM PLACOZOA	Zoom, e-learning, and facebook	Participation and home work	Integrated Principles of Zoology.
	5.2	Radiate Animals PHYLUM CNIDARIA Form and Function	Zoom, e-learning, and facebook	Participation and home work	Integrated Principles of Zoology.
	5.3	PHYLUM CNIDARIA: Life Cycles	Zoom, e-learning, and facebook	Participation and home work	Integrated Principles of Zoology.
6	6.1	PHYLUM CNIDARIA: Feeding and Digestion	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.
	6.2	PHYLUM CNIDARIA: Class Hydrozoa	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.

	6.3	PHYLUM CNIDARIA: Class Hydrozoa	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.
7	7.1	PHYLUM CNIDARIA: Class: Scyphozoa	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.
	7.2	PHYLUM CNIDARIA: Class Staurozoa	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.
	7.3	PHYLUM CNIDARIA: Class Cubozoa	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.
8	8.1	PHYLUM CNIDARIA: Class Anthozoa	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.
	8.2	PHYLUM CTENOPHORA	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.
	8.3	PHYLUM PLATYHELMINTHES Characteristics	Zoom, e-learning, and facebook Ppt, videos	Participation and home work , homemade exam	Integrated Principles of Zoology.
9	9.1	PHYLUM PLATYHELMINTHES Turbellaria, Trematoda	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.
	9.2	PHYLUM PLATYHELMINTHES Monogenea, and Cestoda	Zoom, e-learning, and facebook Ppt, videos	Participation and home work	Integrated Principles of Zoology.
	9.3	PHYLUM PLATYHELMINTHES Monogenea, and Cestoda	Zoom, e-learning, and facebook Ppt, videos	Participation and home work exam	Integrated Principles of Zoology.
10	10.1	Phylum Mollusca FORM AND FUNCTION	Zoom, e-learning, and facebook Ppt, videos	Participation and home work exam	Integrated Principles of Zoology.
	10.2	Phylum Mollusca Characteristics	Zoom, e-learning, and facebook Ppt, videos	Participation and Report	Integrated Principles of Zoology.
	10.3	CLASSES OF MOLLUSCS Class Monoplacophora Class Polyplacophora: Chitons Class Scaphopoda	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
11	11.1	CLASSES OF MOLLUSCS Class Gastropoda	Zoom, e-learning, and facebook	Participation, homemade exam and Report	Integrated Principles of Zoology.

		Class Cephalopoda	Ppt, videos		
	11.2	PHYLUM ANNELIDA, INCLUDING POGONOPHORANS (SIBOGLINIDS)	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
	11.3	PHYLUM ARTHROPODA spiders, scorpions,	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
12	12.1	PHYLUM ARTHROPODA ticks, mites, crustaceans, millipedes,	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
	12.2	PHYLUM ARTHROPODA centipedes, Crustaceans	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
	12.3	PHYLUM ARTHROPODA insects	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
13	13.1	Chordates The Chordates - Five Chordate Hallmarks - Ancestry and Evolution - Subphylum Urochordata (Tunicata) - Subphylum Cephalochordata - Subphylum Vertebrata (Craniata)	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
	13.2	The Reproductive Process - Nature of Reproductive Process • Reproduction - Asexual Reproduction: - Sexual Reproduction: -	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
	13.3	The Reproductive Process Why Do So Many Animals Reproduce Sexually Rather Than Asexually?	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.

14	14.1	- THE ORIGIN AND MATURATION OF GERM CELLS Sex determination Gametogenesis Spermatogenesis Oogenesis	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
	14.2	REPRODUCTIVE PATTERNS STRUCTURE OF REPRODUCTIVE SYSTEMS - Invertebrate Reproductive Systems - Vertebrate Reproductive Systems	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
	14.3	- Vertebrate Reproductive Systems -	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
15	15.1	- * Male Reproductive System - * Female Reproductive System	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
	15.2	Revision	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.
	15.3	Final Exam	Zoom, e-learning, and facebook Ppt, videos	Participation, homemade exam and Report	Integrated Principles of Zoology.

- Teaching methods include: Synchronous lecturing/meeting; Asynchronous lecturing/meeting
- Evaluation methods include: Homework, Quiz, Reports, Exam, ... etc

۲۳ Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	Period (Week)	Platform
Mid Exam	30	Anatomical Terms,, Organ system,, Skeletal system, Respiratory System		Zoom, Microsoft form, Platform,
Quizzes	10	Circulatory System		E-learning
Homework, Reports and participation	10	Integumentary system		E-learning

Final Exam	50			

¶ Course Requirements (e.g: students should have a computer, internet connection, webcam, account on a specific software/platform...etc):

¶ Course Policies:

- A- Attendance policies: students attendance have not been taken into consideration in the evaluation.
- B- Absences from exams and submitting assignments on time: Have been taken with serious consideration,
- C- Health and safety procedures: Not applicable
- D- Honesty policy regarding cheating, plagiarism, misbehavior: Cannot be controlled in electronic exams
- E- Grading policy: As have been agreed upon during our department meeting. Exams, reports and participation 50 marks and final exam 50 marks.
- F- Available university services that support achievement in the course:
Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean, the student shall be considered to have withdrawn from the course. Because of Corona virus many lectures were given through Zoom programme and Team platforms.

¶ References:

- A- Required book(s), assigned reading and audio-visuals:

Text book I. Hickman Roberts Keen Larson I' Anson Eisenhour (2008). Integrated Principles of Zoology. *Publisher: Janice Roerig-Blong*. Fourteenth Edition.

۲۷ Additional information:

Videos Recors

- 1- Support material (s): homework, video clips, homework exams
- 2- Lectures were given online via zoom, lectures were uploaded via university E-learning and face book page. Communications were carried out via face book, whatsApp and Elearning.
- 3- Videos were also give to the students

Name of Course Coordinator: Prof. Dr. Maroof Khalaf-----Signature: -----
--- Date: -22-11-2020-----

Head of Curriculum Committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of Curriculum Committee/Faculty: ----- Signature: -----

Dean: ----- Signature: -----