



وكالة الجامعة للشؤون التعليمية
البرامج الدراسية والتطوير

(5)

General Biology
(Course Syllabus)

الاحياء العامة	:
BIOL-101	:
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	:
3	:

Course Information:

Module Title:	General Biology
Module ID:	BIOL-101
Prerequisite (Co-requisite) :	-
Co-requisite :	-
Course Level:	1 st
Credit Hours:	

:

Module Description:

This course deals with the basic concepts in biology, where includes the general classification of animal and vegetable kingdom, the structure and function of large molecules (sugars, fats, proteins and nucleic acids), Introduction to metabolism, structure and function of animal and plant cell, cell division, Mendel and genes, tissue Animal and finally non-specialized immune and immunology specialist

Module Aims:

1	Definition of the genesis and history of biology
2	The most important aspects of living organisms and the lives of these objects, installation and types of properties
3	The study plant and animal tissue (structure -function - biodiversity)
4	The study of the principles of division and classification (viruses- bacteria- fungi - algae- botany - zoology)
5	To be Knows the various biological processes that occur in living organisms and its relationship to other science
6	To be knows a Mendel's laws and know the genes and types of cell divisions in the cells, nutrition and metabolism and affairs of bioenergy , construction of biological energy, installed solar system and the construction of large storage biomolecules energy-analysis of biomolecules

Learning Outcomes:

1	Student able to describes the installation of the cell characteristics and methods of reproduction
2	Be familiar with the basics of human genetics and Mendel's laws as well as the principles of molecular genetics
3	Remember the basics of classification of organisms.
4	Comparing the structure and functions of plant tissues.
5	Comparing the principal organs of mammals and functions.
6	Define the basics of environmental regulations.

Course Contents:

(Subjects)	(Hours)	(Weeks)
Cell chemistry: the chemical composition of protoplasm, water and functions of inorganic constituents and their functions, organic "carbohydrates, protein molecules, Lipids, nucleic acids "	3	1
Structure and function of the cell organelles, properties of membranes Cellular, a comparison between the primitive cell nucleus and real Nucleus	3	1
Cellular energy, photosynthesis, respiration cell	3	1
Cell proliferation: Direct division and meiosis	3	1
Mendel's laws of heredity, human genetics	3	1
The principles of molecular genetics, genetic code and reproduce, build proteins	3	1
Biodiversity (plants, animals, microorganisms) and basics of classification of organisms	3	1
Structure and function of animal tissues	3	1
Structure and functions of plant tissues(permanent meristems and tissues), reproduction and growth regulation hormone in plant	3	1

Main appliance functions in mammals (Gastrointestinal tract nervous system ,muscular system , excretory system, immune system) mechanisms of internal equilibrium, regulation hormone in the animal	6	2
Basics of environmental regulations and adapt in living organisms	6	2

Textbook and References:

ISBN	Publishing Year	Publisher	Author's Name	Textbook title
	2007	Brookscole	Ville C. and Martin D. W.	Biology
ISBN	Publishing Year	Publisher	Author's Name	Reference
978-1259188138	2016	McGraw-Hill Education; 11 edition	Peter Raven , George Johnson , Kenneth Mason , Jonathan Losos and Susan Singer	Biology 11th Edition
978-1625231468	2016	Kaplan Publishing; Pap/Psc edition	Linda Brooke Stabler , Mark Metz, and Allison Wilkes M.D.	Kaplan AP Biology 2016 (Kaplan Test Prep) Pap/Psc Edition
978-1259544873	2016	McGraw-Hill Education; 11 edition	Darrell Vodopich, and Randy Moore .	Biology Laboratory Manual 11th Edition

