



وكالة الجامعة للشؤون التعليمية
البرامج الدراسية والتطوير

(5)

مختصر توصيف المقرر

(Course Syllabus)

Instrumentation &

Microscopic Preparations

أجهزة وتحضيرات مجهرية	:
BIOL-261	:
أحياء عامة BIOL-101	:
-	:
	:
2	:
Module Title:	Instrumentation & Microscopic Preparations
Module ID:	BIOL-261
Prerequisite (Co-requisite) :	General Biology, BIOL-101
Co-requisite :	-
Course Level:	4 TH
Credit Hours:	2

:(Course Information) *

Module Description

The course is dealing with the identification of the basics of plant and animal samples preparations and how to identify them on the basis of theoretical and practical full microscopic examination, knowledge about the laboratory rules, general methods of microscopic preparations, knowledge about the installation of the microscope, types of lenses, different patterns of biological preparations, microtome types, methods of use and types of knives used in cutting, chipping defects and dye samples and various sections.

Module Aims

أهداف المقرر :

1	The study of different types of biological incubation, equipment and lab tools, anesthesia and installation tools.	
2	Knowing the different types of biological dyes and how they work.	
3	Knowing full preparations and incubation and how to dye of the living cells.	
4	How to prepare microscopic slides and how to dye tissue and cellular preparations.	
5	Knowledge about the laboratory rules and the general methods of microscopic preparations.	

Learning Outcomes:

مخرجات التعليم:

1	The student able to prepare different types of microscopic preparations.	
2	The student able to do anesthesia and installation of various samples.	
3	The student able to prepare and dying some cell organelles.	
4	The student able to prepare small animal skeleton.	

5	The preparation and processing group of adult stages of different insects.	
6	The student able to do preparation and processing groups of animals kept in liquids.	
7	The student able to do Withdrawal of blood samples.	

Course Contents:

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ساعات التدريس (Hours)	الأسابيع (Weeks)	(Subjects)
2	1	Biological incubation, equipment and lab tools.
2	1	Biological dyes.
6	3	Dying of the living cells and different organelles.
6	3	Preparation of microscopic slides and how to dye tissue and cellular preparations.
3	1	The general methods of microscopic preparations.
6	3	Preparation of small animal skeleton.
6	3	Preparation and processing of different insect groups.

Textbook and References:

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ISBN	Publishing Year	Publisher	اسم المؤلف (رئيسي) Author's Name	Textbook title
0443102791	2008	Elsevier Health Sciences	John D. Bancroft, Marilyn Gamble	Theory & Practical of Histological Techniques.
	Publishing Year	Publisher	اسم المؤلف (رئيسي) Author's Name	Reference
03064-44496	1993	TED PELLA, INC	Michael J. Dykstra	A Manual of Applied Techniques for Biological Electron Microscopy
1859960995.	2002	TED PELLA, INC	R.W. Horobin & J.A. Kiernan	Conn's Biological Stains, 10th Edition

