



كلية الطب البيطري



جامعة أسيوط

Relevant Programme: Bachelor of veterinary medical sciences

Department offers the course: Cell and Tissues

Scholar year: 3rd, 4th & 5th years

Course Specifications

A- Basic Information		
Title: Fish Histology	Code:	Level: 3 rd , 4 th & 5 th levels
Theoretical:1	Tutorial/Pract:1	Total Credit hours:2
B- Professional Information:		
1-Aims:	Knowledge of the histological and histochemical composition of the various Fish systems in domesticated animals	
2 – Intended Learning Outcomes (ILOs)		
a-Knowledge and Understanding:	Upon completion of the course, the student will be able to: 1. Define the physical, microscopic and ultra-structure of the various organs and systems of Fish. 2. Familiar with scientific developments in the field of fish histology	
b-Intellectual Skills	Upon completion of the course, the student will be able to: 1. Evaluate and compare the results obtained from the microscopic examination of the different organs of fish and distinguishes between them accurately. 2. It links the structure of the organs and their various functions	
c-Professional Skills	Upon completion of the course, the student will be able to: 1. Use tissue examination tools such as microscopes. 2. Examines, plots and distinguishes the	

	histological and histochemical structures of organs and systems of fish using different microscopic magnifications
d-General Skills	Upon completion of the course, the student will be able to: 1. Uses tissue examination tools such as microscopes. 2. Examine, positions and characterize the histochemical and histological structures of fish organs and systems using different microscopic magnifications
3- Contents	Theoretical scientific content and number of hours:- (24 hours) - Circulatory system. 2 hours Study of the skin and its appendages. 2 hours The lymphatic system. 2 hours - Respiratory system. 2 hours - Reproductive system. 4 hours - Digestive. 6 hours - Endocrine. 2 hours - Nervous system. 2 hours - Urinary tract. 2 hours Practical scientific content and number of hours:-(36 hours) - Studying the exact structure of the body's organs using the tissue slides for each organ of the fish body organs using a light microscope.
4- Teaching and Learning Methods	Hybrid (direct education + e-learning) Or according to what the state decides in different time periods according to the state of the pandemic.
5 – Teaching and Learning methods for Disables students	3D models
6- Teaching and Learning Methods for Distinguished students	Not present
7- Student Assessment	
Tools	Combined exams at the end of the semester for theory, year work, practical and oral
Time Schedule	at the end of the semester
Grading System	1- mid-term: 20%

	2- Practical test: 20% 3- Oral test: 10% 4- Theory test: 50%
8- List of References	
Course Notes	The CD is distributed by the university
Required Books (Text Books)	- Anatomy and histology of the Channel catfish. Grizzle, J.M. and Rogers, W.A. (1976). Auburn university agricultural experiment station, Auburn, Alabama, U.S.A. - Biology of Fishes (Bond, C.E., 1979)
Recommended Books	-Text book of veterinary histology (Dellmann and Brown), Philadelphia, USA, 2 nd edition, 1981. - Histology (Arthur W. Ham)
Periodicals, Web Sites, ... etc	I- Journals: 1- International Journal of Veterinary Science. 2- Assiut Veterinary Medical Journal. 3- Journal of fish biology 4- Veterinary Research. 5- J. of animal Science II- Web sites: www.google.com www.sciencedirect.com www.Pubmed.com www. Blue Histology
9- Facilities Required for Teaching and Learning:	
Microscopes , data show , slides, computers	

Course Coordinator (Course Professor): Prof Dr Enas Ahmed Abdel Hafez

Head of Department: Prof Dr / Enas Ahmed Abdel Hafez

Date:

Program Director and College Dean: Prof Dr/ Madeha Hosny