



## 02 Department of: **Histology**

### **Course Specifications**

Programme(s) on which the course is given: **PhD**

Major or Minor element of programmes: major

Department offering the program: **Faculty of Veterinary Medicine**

Department offering the course: **Histology**

Academic year / Level: **Postgraduate PhD**

Date of specification approval:

### **A- Basic Information**

**Title:** Fish Histology (FH)

**Code:** M/D His 10

Lecture: 2 hours/week for 30 weeks

Practical: 3 hour / week for 30 weeks

Total: 5 hour/week for 30 weeks

### **B- Professional Information**

#### **1 – Overall Aims of Course**

- a. Good application of principals and methods of Scientific research.
- b. Continuing addition of knowledge in the field of specialty
- c. Application of the analytical method in the field of Fish Histology
- d. Mixing of specific knowledge related to the field of study in the environmental considerations.
- e. Good awareness by the surrounding and actual problems and recent theories in the field of specialty.
- f. Discover the professional problems and the recent visions in the field of Fish Histology
- g. Defining the professional problems and finding solutions.

- h. Wide suitable special professional skills and using the suitable techniques in the field of Fish Histology**
- i. Direction to develop new methods and articles for performance of the profession.**
- j. Using the suitable techniques in the profession.**
- k. Active communication and the ability to lead work team.**
- l. Discussion making in the profession.**
- m. Using the available sources in order to obtain and keeping the highest values.**
- n. Awareness in society development and environmental preservation national and international**
- o. Transparency correctness and following the professional ethics.**
- p. Self academic and professional development and able for self learning.**
- q. Self continuing development and transfer the experience to the others**

## **2 – Intended Learning Outcomes of Course (ILOs)**

### **a- Knowledge and Understanding:**

- a1- theories and principals related to the study and other fields related to the field.**
- a2- the effect of the applications on the environmental.**
- a3- the scientific development in the field of specialty.**
- a4- Ethics and laws of the profession in the field of specialty.**
- a5- principals of quality control assurance in the profession in the field of specialty.**
- a6- Principals and Ethics of scientific researches .**

### **b- Intellectual Skills**

- b1- Skills in analysis and evaluation in the field of specialty and solution of problems.**
- b2- Skills in solution of specific problems in case of shortage of resources .**
- b3- new research studies adding to the knowledge .**
- b4- Skills in connection between different knowledge in solution of professional problems.**
- b5- Skills in research study or writing scientific paper about the research problems.**
- b6- evaluation of the risks in the profession in the field of specialty.**
- b7- planning for development of the performance in the field of specialty.**
- b8- decision making in the professional policy.**

- b8- Invention and innovation.**
- b9- Scientific documents based discussion.**

**c- Professional and Practical Skills**

- c1- Good performance of recent professional principals in the field of specialty .**
- c2- Writing and evaluation of professional reports.**
- c3- Evaluation of techniques in the field of specialty .**
- c4- using technology in the professional performance .**
- c5- planning for development of the professional performance and performance of the others.**

**d- General and Transferable Skills**

- d1-Different types of active communication .**
- d2-using of information technology on the behave of professional application .**
- d3-teaching the others and evaluation of their performance.**
- d4-self assessment and continuing self learning.**
- d5-uses of different resources for obtaining information and knowledge.**
- d6-working in leading team in the profession.**
- d7-management of scientific meeting the ability of time management.**

**3- Contents:**

Topic	No. of hours	Lecture	Tutorial/Practical
Female reproductive system	12	4	8
Male reproductive system	12	4	8
Digestive system (Alimentary tract)	12	4	8
Digestive system (Digestive glands)	12	4	8
Cardiovascular system	12	4	8
Lymphatic system	12	4	8
Respiratory system	12	4	8
Urinary system	12	4	8
Endocrine system	12	4	8
Skin	12	4	8
Central nervous system- Sense organs	12	4	8
Final exams	1	-	-

**4- Teaching and Learning Methods**

- 4.1- Lectures.
- 4.2- Discussion.
- 4.3- Practical classes

## 5- Student Assessment Methods

- 5.1-. Written and MCQ exams to assess mostly knowledge and understanding.
- 5.2- Oral exam to assess knowledge information and intellectual skills mainly.
- 5.3-. Practical exam to assess professional and practical skills.
- 5.4 – Activities including preparation of slides for fish tissues.

### Assessment Schedule

Assessment 1: Written and MCQ exam	Week 24
Assessment 2: Practical exam	Week 25
Assessment 4: Oral term exam	Week 26

### Weighting of Assessments

Written and MCQ exams	60%
Oral term exam	15%
Practical exam	20 %
Activities	5%
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Total	100%

## 6- List of References

### 6.1- Course Notes

- Veterinary Histology & Cytology (Part 2): Department of Anatomy and Histology, Faculty of Veterinary Medicine, Assiut University.
- Ahmed YA, notes on histology (personal notes).

### 6.2- Essential Books (Text Books)

### 6.3 Recommended Books.

### 6.4 Periodicals, Web Site,...etc

#### *Periodicals:*

- Journal of Histology.
- Poultry Science

Web sites:

- <http://rapidog.com/colour-atlas-of-fish-histology-rapidshare.html>
- <http://education.vetmed.vt.edu/Curriculum/VM8054/VM8054HP.htm>
- <http://www.ivis.org/home.asp>
- [http://www.svu.edu.eg/arabic/links/camps/qena/veter\\_medicine/index.htm](http://www.svu.edu.eg/arabic/links/camps/qena/veter_medicine/index.htm)
- <http://www.lab.anhb.uwa.edu.au/mb140/>

#### 7- Facilities Required for Teaching and Learning

No.	Instrument
1-	Paraffin microtome
2-	Hot air ovens
3-	Digital pH meter
4-	Digital balance
5-	Incubator
6-	Student microscopes
7-	Chemicals
8-	Image analysis system
9-	Transmission electron microscope
10-	Scanning electron microscope
11-	Slide projector
12-	Overhead projector
13-	Tissue processor
14-	Cryostat
15-	Deep freezer
16-	Fridges
17-	Ultra tome
18-	Water bath
19-	Jars and bottles
20-	Shaker
21-	Laminar flow
22-	Centrifuge

Course Coordinator: Dr. Yasser Abdel Galil Ahmed Ali

Date: