



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: Cytology and Ceto-chemistry (CCC)

Code: **M/D His 01**

Lecture: 2 hours for 30 weeks

Practical: 3 hour 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 Cytology and Ceto-chemistry
- 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 Cytology and Ceto-chemistry Defining the professional problems and finding solutions.
- g. Wide suitable special professional skills and using the suitable techniques in the field of Cytology and Ceto-chemistry

- h. Direction to develop new methods and articles for performance of the profession.**
- i. Using the suitable techniques in the profession.**
- j. Active communication and the ability to lead work team.**
- k. Discussion making in the profession.**
- l. Using the available sources in order to obtain and keeping the highest values.**
- m. Awareness in society development and environmental preservation national and international**
- n. Transparency correctness and following the professional ethics.**
- o. Self academic and professional development and able for self learning.**
- p. 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
Introduction	12	4	8
Cell	12	4	8
Nucleus	12	4	8
Membranous cell organelles	12	4	8
Membranous cell organelles	12	4	8
Non-membranous cell organelles	12	4	8
Non-membranous cell organelles	12	4	8
Cell inclusions	12	4	8
Protein synthesis	12	4	8
Cell division	12	4	8
Cell aging and death	12	4	8
MCQ- exam	1	0	0

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 depending upon internet-based search about specific topic to examine general and transferable skills.

Assessment Schedule

Assessment 1: Mid term MCQ exam Week 23

Assessment 2: Practical exam Week 23

Assessment 3: Final- Written exam Week 24

Assessment 4: Oral term exam Week 25

Weighting of Assessments

MCQ exams 10%

Final- term exam 50%

Oral term exam 10%

Practical exam 15 %

Other types of assessment 5%

Total 100%

6- List of References

6.1- Course Notes

- Veterinary Histology & Cytology (Part I): Department of Anatomy and Histology, Faculty of Veterinary Medicine, Assiut University.
- Ghallab, A. (2004). Introduction to functional and clinical histology, text and atlas- part I. Giza, Elmelegy press.
- Ahmed YA, notes on histology (personal notes).

6.2- Essential Books (Text Books)

- Paulsen, D. (1997). Basic Histology; Examination and Board review. Norwalk, CT, APPLETON & LANGE.
- Gartner, L. and J. Hiatt (2006). Color textbook of Histology, Saunders.
- Young, B. and Heath, J. (2000). Wheather's Functional Histology, a text and colour atlas. Sydney, CHURCHILL LIVINGSTONE.

6.3 Recommended Books.

6.4 Periodicals, Web Site,...etc

Periodicals:

- Journal of Histology.
- Journal of Electron Microscopy

- Cell

Web sites:

- <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.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: