



Course specification

1-Basic information

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|----------------------------|--|
| Course Code: | HIS:1102 |
| Course title : | Cytology and Histology (General) |
| Academic year: | First year (1 st semester) |
| Program title: | B. Sc. Veterinary Medical sciences |
| Contact hours/ week | Lecture: 2hrs/week Practical: 2hrs/week |
| Approval Date | |

2-Professional information

Overall aims of course: The main aim of this course is to provide the students with the basic knowledge about different types of cells and tissues of animal body in addition to the microscopic structure of them with their functional correlates.

- 1- Describe the normal microscopic structure of all body tissues
- 2- Differentiate between the different body tissues and cells.
- 3- Identify special cellular and tissue constituents according to its staining affinity.
- 4- Specify cellular constituents and mention their role in the cell

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

By the end of this course the student should be able to:

- a1- Classify the animal cells and general tissues.
- a2- List the characteristic features and functions of the different cells and tissues of different animal species.
- a3- Mention the cytoplasmic organelles and types of specialized cells
- a4- Describe the normal microscopic structure of connective tissue types, epithelial tissue types, muscular tissue types and nervous tissue types.

b-Intellectual skills

By the end of this course the student should be able to:

- b1- Interpret the microscopic structural features of all body cells and tissues
- b2-Differentiate between the microscopic structure of some tissues in different animal species
- b3- Correlate the relationship between the basic microscopic structure and functions of all body tissues.

C- Professional and practical skills

By the end of this course the student should be able to:

- c1. Obtain histological specimen.
- c2. Use the light microscope to examine stained sections.
- c3. Practice the cells and tissue constituents according to their staining affinity.
- c4. Employ all the gained knowledge in histological practice in skillful pattern.



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d- General and transferable skills

By the end of studying the course, the student should be able to:

- d1. Work in groups and manage time
- d2. Communicate with their professors and staff members
- d3. Utilize computer, microscope and internet for research work and student activities
- d4. Demonstrate the ability of problem definition and increase the ability of problem solving

4-Topics and contents

| Course | Topic | No. of hours | Lectures | Practical |
|---|---|--------------|-----------|-----------|
| First year-first semester General histology (Lec. 2 h./week, Pract.2 h./week) | Course description | | | |
| | Introduction and histological terminology * | 2 | 2 | |
| | Histological techniques | 4 | | 4 |
| | - Cytology | 6 | 4 | 2 |
| | Epithelial tissue | 8 | 4 | 6 |
| | - Connective tissue | 10 | 6 | 6 |
| | - Blood and hematopoietic tissue | 4 | 2 | 2 |
| | - Muscular tissue | 4 | 2 | 2 |
| | - Nervous tissue | 4 | 2 | 2 |
| | - Nervous system | 4 | 2 | 2 |
| Total | | 52 | 26 | 26 |

5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows
- 5.2- Self learning by preparing essays, review articles and presentations (computer researches and faculty library)
- 5.3- Practical and small group sessions (microscope, samples of stained tissues and data show).
- 5.4 Audiovisual (videos)

6-Teaching and learning methods for the students with disabilities

Office hours and special meeting



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7-Student assessment

7.1. Assessments methods:

| Method | Matrix alignment of the measured ILOs/ Assessments methods | | | |
|--------------------|--|-------------|-----------|-------------|
| | K&U | I.S | P&P.S | G.S |
| Written Exam | a1- a2- a3- a4 | b1- b2- b3- | | |
| Practical Exam | a4 | | c2- c3-c4 | d3 |
| Oral Exam | a1- a2- a3- a4 | b1- b2- b3- | c4 | d2- d4 |
| Student activities | | b1- b2- b3 | c4 | d1-d2-d3-d4 |

7.2. Assessment schedules/semester:

| Method | Week(s) |
|--------------------|---------------------------|
| Practical exams | 14 th week |
| Written exams | 15 th week |
| Oral Exam | managed by the department |
| Student activities | All over the semester |

7.3. Weight of assessments/semester

| Assessment | Weight of assessment |
|--------------------|----------------------|
| Written exam | 50% |
| Practical exam | 20% |
| Oral Exam | 20% |
| Student activities | 10% |
| total | 100% |

8- List of references

8.1. Notes and books

Departmental notes on:

-Text book of veterinary histology part I:-Prof.Dr.Khaled Mazher, Dr.Taghreed Nabil,Dr. Usama Kamal and Dr.Abdel-Razek Hashem. 2015/ I.S.B.N. 27221/2015

-Text book of veterinary histology part II:-Prof.Dr.Khaled Mazher, Dr.Taghreed Nabil,Dr. Usama Kamal and Dr.Abdel-Razek Hashem. 2015/ I.S.B.N. 27219/2015

8.2. Essential books:



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- **Weather's Functional Histology (main reference book)**, a text and colour atlas. Fourth edition, by B.Young and J.W.Heath.

Cormack, D. H. (1987): Ham's Histology 9th Ed. J. B. Lippincott Company, Philadelphia, London, Mexico City, New York, St. Louis, Sao Paulo, Sydney

8.3. Recommended texts

- **Headlines of Veterinary Histology**. Hany E. S. Marei. 5th ed. 2006. V II.

Journals:

- American Journal of anatomy
- Anatomia Histologia Embryologia
- Anatomical record
- Egyptian journal of Histology

Websites:

WWW.Science direct

WWW. Pubmed.com

[WWW.Scholar](http://WWW.Scholar.google.com) google.com

Course Coordinators

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Head of Department

Prof.Dr/Khaled M. Mazher



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| | Topics | week | Intended learning outcomes of course (ILOs) | | | |
|---|--|---------------------------------------|---|---------|-------------|-----------|
| | 1 st semester | | K and U (a) | I.S (b) | P. P.S. (c) | G.T.S (d) |
| 1 | Introduction and histological terminology * Histological techniques | 1 st | 1 | | 1 | 2 |
| 2 | Cytology | 2 nd and 3 rd | 1,2,3 | 1,3 | 2,3,4 | 1,2,3,4 |
| 3 | Epithelial tissue | 4 th | 2,4 | 1,2,3 | 2,3,4 | 1,2,3,4 |
| 4 | Connective tissue | 5 th and 6 th | 2,4 | 1,2,3 | 2,3,4 | 1,2,3,4 |
| 5 | Blood | 7 th | 2,4 | 1,2,3 | 2,3,4 | 1,2,3,4 |
| 6 | Muscular tissue | 8 th | 2,4 | 1,2,3 | 2,3,4 | 1,2,3,4 |
| 7 | Nervous tissue | 9 th | 2,4 | 1,2,3 | 2,3,4 | 1,2,3,4 |
| 8 | Nervous system | 10 th and 11 th | 2,4 | 1,2,3 | 2,3,4 | 1,2,3,4 |
| 9 | Lymphatic system | 12 th and 13 th | 2,4 | 1,2,3 | 2,3,4 | 1,2,3,4 |



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