

Histology And Cell Biology1

HISTOLOGY 1 COURSE SPECIFICATION 2016/2017

University: Assiut

Faculty: Medicine

Department: Department of Histology and Cell Biology

1- Basic course information

Course title: Histology 1

Code: Amed03

Academic year / Level: first year

Programme(s) on which the course is given: M.B.B.Ch. program

Department offering the course: Department of Histology And Cell Biology

Lecture: 60 hours

Tutorial/practical: 60

Total : 120 hours

Date of specification approval: 10/2016

External evaluators:

Prof.Dr.Soad Ahmed AbdelGawad. Department of Histology-AI_Azhar University.Cairo

Prof.Dr.Maher Omara .Department of Histology -Ain-Shams University

Prof. Dr.Somaya AbdelAleem. Department of Histology -Ain-Shams University

Date of Last revision: 10-2016

2- Overall aims

By the end of the course, students should be able to:

- To provide the student with the knowledge about the methods of studying cells and tissues
- To provide the student with an appropriate background covering the different types of tissues
- To provide the student with an appropriate background about the relationship between the structure of each cell components with their functions.

- To enable the students to recognize the reflection of the method used on the picture observed and become familiar with the various methods and their applications.
- To enable the students to recognize the scientific basis of tissue preparation and practice them. Examples: making films, spreads and counting.
- To provide the student with an appropriate background about the structure and function of the body and its major organ systems and of the molecular and cellular mechanisms.
- To enable the development and application of appropriate ethical principles, and communication skills.

3- Intended learning outcomes (ILOs)

A- Knowledge and understanding

By the end of the course, students should be able to:

- A1- Mention the basic steps in preparing specimens for light and electron microscopy.
- A 2- Describe the histological characteristics of normal cells (A5)
- A3- Describe the structure and functions of the cytoplasm.(A5)
- A4- Describe the subunits of each nuclear component and their role in its function.(A7)
- A5- Describe the process of cell division and identify the activities that control the transition from each phase of the cell cycle to the other. .(A6)
- A6- Mention the difference between normal and abnormal karyotyping .(A7)
- A7- Describe the structural characteristics of the four basic tissue types.(A5)
- A8- Mention the basic histological structure of some systems (Vascular, Lymphatics, etc.). .(A5)
- A9- Adopt the principles of lifelong learning.

B-Intellectual skills

By the end of the course, students should be able to:

- B1- Correlate between histological structure, function of any cell or tissue and clinical data.(B1)
- B2- Select appropriate methods to reveal specific microscopic features of cells and tissues. .(B9)
- B3-. Recognize the most important diagnostic features that characterize each tissue. .(B2)
- B4- Distinguish between normal and abnormal karyotyping.(B3)

B5- Interpret a complete blood picture report.(B3)

B6- Compare between different blood elements and their development. .(B2)

C- Professional skills

By the end of the course, students should be able to:

C1- Examine the instruments and techniques used to prepare and study histological specimens. .(C11)

C2 – Examine the different parts of the microscope and using the microscope efficiently. .(C11)

C3- Examine the histological slides under the microscope efficiently. .(C1)

C4- Use the microscope to differentiate between various types of stains & micro techniques.(C11)

C5- – Examine different cell organelles.(C1)

C6- Use the microscope to differentiate between different blood cells in blood films.(C2)

C7- Use the microscope to differentiate between different types of epithelium, connective tissue cells, connective tissue proper & bone cells.(C1)

C8- Use the microscope to differentiate between different tissues and organs in histological slide. .(C1)

C9- Perform a differential leucocytic count using the blood film. .(C2)

C10- Draw the structures they have seen in electron photomicrographs and under light microscope during practical classes. Draw the histological structure of different tissues seen by light microscope during practical classes. .(C7)

D- General skills

By the end of the course, students should be able to:

D1- Display the importance of life long learning and show a strong commitment to it.(D5,D11)

D2- Verify the use of sources of biomedical information to remain current with advances in knowledge and practice.(D11,D12)

D3- Display freely, keeping an ethical behavior and improve his capability to describe and discuss.(D13,D17)

D4- Communicate efficiently with his colleagues in the resources of practical laboratories.(D7)

D5- Share in the work efficiently with the instruments and equipments of the department in a responsible manner keeping them intact and clean. .(D9)

4-Course Contents

Topic	No. of Hours	Lecture	Tutorial / Practical
Method of studying cells and tissues	12	4	8
Cell biology (cytology & cytogenetics)	24	16	8
Hematology	18	8	10
Epithelial Tissues	10	4	6
Connective tissues	10	4	6
Cartilage and Bone	12	6	6
Muscular tissues	8	4	4
Nervous tissues	10	6	4
The blood circulatory system	8	4	4
Lymphatic system	8	4	4
Total	120	60	60

5- Teaching and learning Methods

- 1- Lectures for knowledge and intellectual skill outcomes.
- 2- Practical sessions to gain practical skills and using Practical book for drawing
- 3-Monitoring the colored slides through the closed circuit for reassurance
- 4- E learning (All practical part (slides) and questions of different topics available online for student's assessments)

Facilities required for teaching and learning

- 1- White board
- 2- Overhead projectors
- 3- Microscopes
- 4- Closed circuit Monitors
- 5- Data show for power point presentations
- 6- E-Learning

6- Teaching and learning methods for students with learning difficulties:

- 1- Lectures
- 2- Discussion sessions

- 3- Practical sessions to gain practical skills and using Practical book for drawing
- 4-Monitoring the colored slides through the closed circuit for reassurance
- 5- Special low price classes outside the teaching schedule

7- Student assessment:

A- Methods

- 1- Written exams (short essays and MCQs) to assess knowledge and intellectual skills (a2-a9, b1-6)
- 2- Oral exam to assess knowledge, general and intellectual skills (a1-a9, b1-b6, D1- D3)
- 3- Practical exam (Identification of histological slides) to assess intellectual, practical and general skills (c1-c11, D3- D4 - D5)
- 4- Course assignment and practical book to assess practical and general skills (c1-c11, D1- D5)
- 5- Attendance Criteria: The minimal acceptable attendance is 75%

B-Assessment schedule

Assessment 1: Mid term MCQ assessment

Assessment 2: Final practical examination by the end of the 20th Week

Assessment 3: Final written examination by the end of the 24th Week

Assessment 4: Final oral examination by the end of the 24th Week

Assessment 5: Course assignment and practical book

C- Weighting of assessments

Assessment (1): Mid term MCQ assessment	13.4%
Assessment (2): Final Practical Examination (Drawing & Slides exam.)	16.6%
Assessment (3): Final written Examination	50%
Assessment (4): Final Oral Examination	13.4%
Assessment (5): Course assignment and practical book	6.6%
Total	100%

8- List of references

1-Course Notes : Department undergraduate book of histology and Colored Atlas of Histology by staff members of histology Department

2- Essential Books: (Text Books):

Basic Histology, Junqueira, L.C 2016

3-Recommended Books:

Bloom and Fawcett 1998.

4- Periodicals and Web Sites of histology

Course coordinators: Prof. Dr. Amal Taha Abu- Elghait

Dr. Dalia Abdou Elgamal Dr. Marwa Hassan Bakr

Head Of Department:

**Prof. Dr. Amal Marzouk Abdel-Hafez
10-2016**