Mansoura University
Faculty of Medicine
Histology Dept

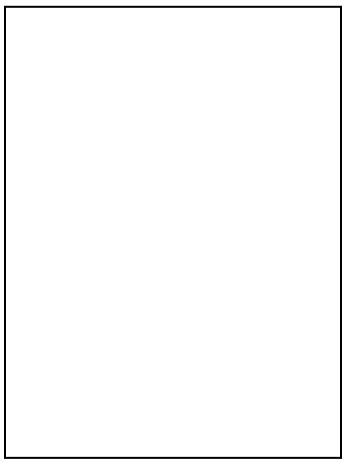
LOG BOOK

Histology Department

(2014-2015)

LOGBOOK for Medical Students

Mansoura university
Faculty of medicine
Histology and cell Biology Department



Student's Name :

Address :

E-mail :

Serial Number :

Classroom Teaching Group :

Attendance Ratio :

Head of the Department :

Curriculum Content

Histology and Cell Biology Course

- **Theoretical Topics (Lectures) : 60 hours**
- **Practical Course : 60 hours**

Academic Teaching Materials :	Practical Course
Introduction and Micro techniques	**Staining techniques types of microscopes**
Histology of the cell	**Structure of the cell**
Histology of Nucleus and Genetics	**Structure of Nucleus and Genetics**
Histology of Cell Division & chromosomal anomalies	**Structure of Cell Division &chromosomal anomalies**
Histology of Epithelium	**Structure of Epithelium**
Histology of Connective tissue	**Structure of Connective tissue**
Histology of Cartilage	**Structure of Cartilage**
Histology of Bone	**Structure of Bone**
Histology of Muscle Tissue	**Structure of Muscle Tissue**
Histology of Nervous Tissue	**Structure of Nervous Tissue**
Histology of Spinal Blood	**Structure of Spinal Blood**
Histology of Vascular system	**Structure of Vascular system**
Histology of Lymphatic system	**Structure of Lymphatic system**
Histology of Respiratory system	**Structure of Respiratory system**
Reticulo- endothelial system	

Intended Learning Outcomes of Course

♦ Knowledge and Understanding

1- Enlist the basic steps in preparing and staining specimens for light and electron microscopy.
2- Recognize the histological characteristics of normal cells.
3- Identify the structure and functions of cytoplasmic components (membranous and non membranous cell organelles , cell inclusions).
4- Describe the subunits of each nuclear component and their role in its function.
5- Explain the process of cell division and identify the activities that control the transition from each phase of the cell cycle to the other.
6- Describe the structure characteristics of the four basic tissue types (epithelium , connective tissue , muscle tissue and nervous tissue)
7- Describe and classify different blood elements and discuss their development.
8- Discuss the basic histological tissues of body (General histology) and some system (Vascular , Lymphatics &Respiratory).

♦ Intellectual Skills

1- Choose appropriate methods to reveal specific microscopic features of cells and tissues.
2- Distinguish slides different from those seen during his course but of same organs previously studied.
3- Differentiate between normal and abnormal karyotyping.
4- Correlate between histological structure & function of any different cell or tissue.
5- Interpret a complete blood picture report.

♦ Professional and practical skills

1- Employ the instruments and techniques used to prepare and study histological specimens.
2- Use the microscope efficiently.
3- Handle the histological glass slides and examine them using the maximum microscopic facilities.
4- Distinguish various types of stains & microtechniques.
5- Distinguish different cell organelles.
6- Distinguish different blood cells in blood films.
7- Differentiate between different types of epithelium, connective tissue cells. connective tissue proper & bone cells.
8- Differentiate between different tissues and organs in histological slide seen under the microscope.
9- Perform a differential leucocytes count using the blood film.
10-Draw and label the structures they have seen in electron photomicrographs and under light microscope during practical classes.

♦ General and Transferable Skills

1- Use the sources of biomedical information to remain current with advances in knowledge and practice.
2- Express themselves freely and adequately by improving their descriptive capabilities through power point presentation and enhancing their communication kills through communication with their colleague during preparing the topic of presentation.

♦ Attitude :

1- Appreciate the importance of the life long learning and show a strong commitment to it.
2- Self study and education.

Student Assessment Methods

1- Written exams (short essays and MCQs)
2- Oral exam
3- Practical exam (identification of histological slides)
4- Log Book and practical book
5- Student activities
6- Attendance criteria : The minimal acceptable attendance is 75%
7- Formative examinations
8- Virtual lab

	Assessment Schedule	Weight	Degree
Assessment 1	**MCQ assessment by the end of 6th week (mid-term)**	**6.7%**	**10 degrees**
Assessment 2	**MCQ mid – year assessment**	**10%**	**15 degrees**
Assessment 3	**Virtual lab , activity**	**3.3%**	**5 degrees**
Assessment 4	**Practical book and log book**	**3.3%**	**5 degrees**
Assessment 5	**Final practical examination**	**16.7%**	**25 degrees**
Assessment 6	**Final written examination**	**50%**	**75 degrees**
Assessment 7	**Final oral examination**	**10%**	**15 degrees**
Total		**100%**	**150 degrees**

Week 1

I. The Microtechniques
II. Staining of paraffin sections with Hematoxylin and Eosin
III. Microscopy

Technique	Uses	Date	Signature

Assessment Question:

What are the resolution powers of light and electron microscopes?

Week 2

The Cell Membrane & Cell Coat

LM	EM	Date	Signature

Assessment Question:

Mention the difference between the inner and outer halves of the cell membrane.

Week 3

The Mitochondria

LM	EM	Date	Signature

Assessment Question:

Describe the shape of the mitochondria by LM & the stains to identify.

Week 4

The Ribosomes

LM	EM	Date	Signature

Assessment Question:

Describe the EM picture of ribosomes.

Week 5

The Endoplasmic Reticulum (ER)

LM	EM	Date	Signature

Assessment Question:

What are the types of ER ?

Week 6

The Golgi Apparatus

LM	EM	Date	Signature

Assessment Question:

Mention the components of Golgi apparatus by EM.

Week 7

The Lysosomes & Preoxisomes

Types	LM	Date	Signature

Assessment Question:

What are the autophagic vacuole & heterolysosome.

Week 8

The Cyotoplasmic filaments

LM	EM	Date	Signature

Assessment Question:

Mention the types of filaments in the cytoplasm.

Week 9

The Cell Inclusions

LM	EM	Date	Signature

Assessment Question:

Describe the glycogen granules by EM ?

Week 10

The Nucleus and Cell Division

LM	EM	Date	Signature

Assessment Question:

EM appearance of Nuclear membrane.

Week 11

The Karyotyping & Chromosomal Anomalies

Name	Karyotyping	Date	Signature

Assessment Question:

What is the Karyotyping of Klinefelter's syndrome.

Week 12

Virtual Lab. I

Slides	Stain	Date	Signature

Week 13

The Epithelial Tissue

Slides	Stain	Date	Signature

Assessment Question:

Types and Sites of pseudostratified colum. epith. Why it is called pseudostratified?

Week 14

The Connective Tissue Proper

Slides	Stain	Date	Signature

Assessment Question:

What are the stains of reticular C.T?

Week 15

The Cartilage

Slides	Stain	Date	Signature

Assessment Question:

What are the types of Cartilage?

Week 16

The Bone

Slides	Stain	Date	Signature

Assessment Question:

Mention the different arrangements of bone matrix in compact bone.

Week 17

The Muscle Tissue

Slides	Stain	Date	Signature

Assessment Question:

Difference between cardiac muscle fiber & Purkinje fiber?

Week 18

The Nervous Tissue

Slides	Stain	Date	Signature

Assessment Question:

What are the difference between the nerve fibers of spinal ganglion and those of autonomic ganglion?

Week 19

Virtual Lab. II

Slides	Stain	Date	Signature

Week 20

The Blood

Slides	Stain	Date	Signature

Assessment Question:

What are the cellular components of blood ?

Week 21

The Blood Vascular System

Slides	Stain	Date	Signature

Assessment Question:

What are the difference between the medium sized artery and vein?

Week 22

The Lymphatic System

Slides	Stain	Date	Signature

Assessment Question:

Parenchyma of Lymph node.

Week 23

The Respiratory System

Slides	Stain	Date	Signature

Assessment Question:

Conducting portion of the respiratory system.

Week 24

Virtual Lab.III

Slides	Stain	Date	Signature

Student Activity

The Type of the Student Activity :

The Topic of the Activity :

Supervisors on the Activity :

Photo

Date	Signature

Assessment

	Mark	Signature
Practical book and log book		
Virtual Lab, activity		
Oral examination		