Mansoura Faculty of Medicine

Department of Histology and Cell Biology

Logbook of Histology & Cytology

"Master Degree"

(HIST 500)

IDENTIFICATION DATA

Name: .....

Place and date of birth ……..

Address: …….

Telephone number ……

E-mail: ...……

M.B., B. Ch:

Date: .....

Degree: .....

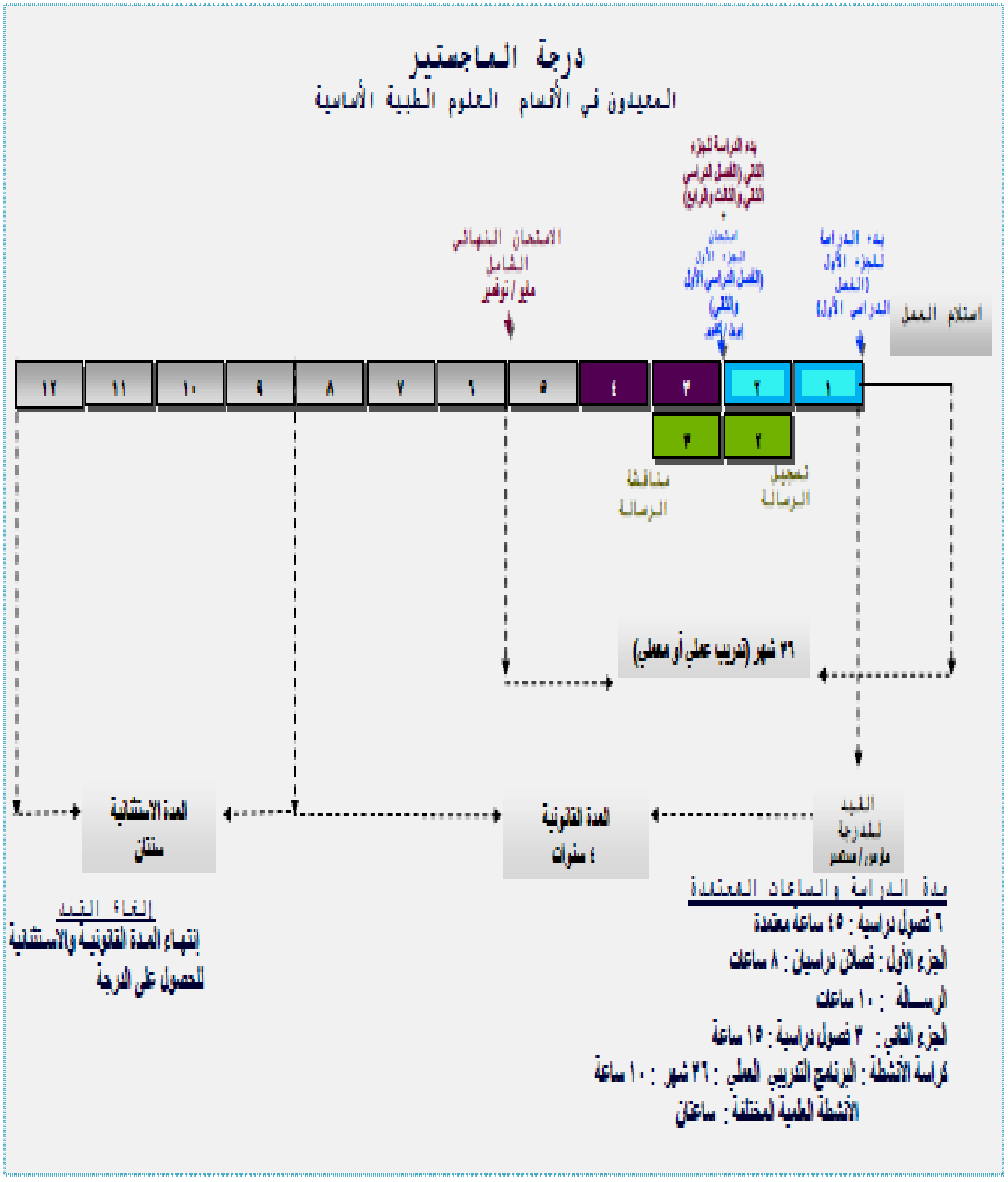
Master Degree:

Date of Registration: .....

Signature:

Head of the Department

Vice Dean for research and postgraduate study


درجة الماجستير
المعيدون في الأقسام العلوم الطبية الأساسية
بدء الدراسة للجزء الثاني (الفصل الدراسي الثاني والثالث والرابع)
امتحان الجزء الأول (الفصل الدراسي الأول والثاني)
الامتحان النهائي الشامل مايو / نوفمبر
بدء الدراسة للجزء الأول (الفصل الدراسي الأول)
استلام العمل
١٢ ١١ ١٠ ٩ ٨ ٧ ٦ ٥ ٤ ٣ ٢ ١
٣ ٢
مناقشة الرسالة
تسجيل الرسالة
٢٦ شهر (تدريب عملي أو معملي)
المدة الاستثنائية سنتان
المدة القانونية ٤ سنوات
القيد للدرجة ماجستير
مدة الدراسة والساعات المعتمدة
٦ فصول دراسية : ٤٥ ساعة معتمدة
الجزء الأول : فصلان دراسيان : ٨ ساعات
الرسالة : ١٠ ساعات
الجزء الثاني : ٣ فصول دراسية : ١٥ ساعة
دراسة الأنشطة : البرنامج التدريبي العملي : ٢٦ شهر : ١٠ ساعة
الأنشطة العلمية المختلفة : ساعتان
إلغاء القيد
إنتهاء المدة القانونية والاستثنائية
للحصول على الدرجة

Master Degree in Histology & Cytology
(HIST 500)

	المقـــررات	Courses	الكـود	الساعات المعتمدة	
الفصل الدراسي الأول والثاني	كيمياء الأنسجة	Histochemistry	HIST 502 HI	4	٨
	يحدد مجلس القسم بالإشتراك مع الطالب مقرر علمي واحد من المقررات الآتية :		HIST 505	4	
	الباثولوجي	Pathology			
	علم الأجنة	Embryology	HIST 501		
الفصل الدراسي الثالث والرابع					١٥
	علم الأنسجة وبيولوجيا الخلية	Histology & Cell Biology	HIST 502	13	
	مقرر اختياري (يختار مقرر واحد): كيمياء الأنسجة المناعية الكيمياء الحيوية العامة	Elective Course: Immunohistochemistry General Chemistry	HIST 502 IH HIST 502 P	2	
كراسة الأنشطة	برنامج التدريب العملي في علم الأنسجة والخلايا - تحضير العينات لفحصها بالميكروسكوب الضوئي - تحضير العينات لفحصها بالميكروسكوب الإلكتروني - أنواع الصباغات المختلفة		HIST 502 P		١٠
	• أنشطة علمية مختلفة				٢
الرسالة					١٠
إجمالي الساعات المعتمدة					٤٥

نظام الامتحان وتوزيع الدرجات

الفصل الجزء الأول

المقرر	الاختبار	الـــدرجة			إجمالي
		تحريري	شفهي	عملي	
كيمياء الأنسجة	تحريري (٣ ساعات) + شفهي + عملي	١٨٠	٦٠	٦٠	٣٠٠
المقرر الذي تم اختيارة	تحريري (٣ ساعات) + شفهي + عملي	١٨٠	٦٠	٦٠	٣٠٠
	إجمالي الدرجة				٦٠٠

الامتحان النهائي الشامل

المقرر	الاختبار	الـــدرجة			إجمالي
		تحريري	شفهي	عملي	
علم الأنسجة وبيولوجيا الخلية	إختباران تحريريان مدة كل منهما ثلاث ساعات + اختبار شفهي + اختبار عملي	١٥٠+١٥٠	١٥٠	١٥٠	٦٠٠

المقرر الاختياري	اختبار تحريري مدته ساعة	١٠٠
إجمالي الدرجة		٧٠٠

ملحوظة: سيتم عقد امتحان MCQ في كل مقرر يتم تدريسه في نهاية الفصل الدراسي وتحسب درجاته بنسبة ٢٠% من الدرجة الكلية المخصصة

Contents

I. First Part of Master Degree

8 Credit Hours	**4**	**Histochemistry**	**Course Code**	**HIST 502 HI**
	4	**Course Code**	**Course**	**Selection**
		HIST 505	**Pathology**	☐
		HIST 501	**Embryology**	☐

Histochemistry

N°	Date	Lecture		Practical		Staff	
		Hrs	Topic	Hrs	Topic	Name	Signature
1	/ /	3	CONNECTIVE TISSUE STAINS	1	Practical application of stains	Dr.Nisreen	
2	/ /	3	CONNECTIVE TISSUE STAINS	1	Practical application of stains	Dr.Nisreen	
3	/ /	3	CONNECTIVE TISSUE STAINS	1	Practical application of stains	Dr.Nisreen	
4	/ /	3	MUCINS STAINS	1	Practical application of stains	Dr.Nisreen	
5	/ /	3	Glycogen STAINS	1	Practical application of stains	Dr.Nisreen	
6	/ /	3	LIPIDS	1	Practical application of stains	Dr.Nisreen	
7	/ /	3	PROTEINS AND NUCLEIC ACIDS	1	Practical application of stains	Dr.Nisreen	
8	/ /	3	Bone	1	Practical application of stains	Dr.Samar	
9	/ /	3	pigments & minerals	1	Practical application of stains	Dr.Samar	
10	/ /	3	CYTOP ASMIC GRANULES, AND ORGANELLES	1	Practical application of stains	Dr.Samar	
11	/ /	3	ENZYME HISTOCHEMISTRY AND DIAGNOSTIC APPLICATIONS	1	Practical application of stains	Dr.Samar	
12	/ /	3	ENZYME HISTOCHEMISTRY AND DIAGNOSTIC APPLICATIONS	1	Practical application of stains	Dr.Samar	
13	/ /	3	AMYLOID	1	Practical application of stains	Dr.Samar	
14	/ /	3	NEUROENDOCRINE	1	Practical application of stains	Dr.Samar	
15	/ /	3	TECHNIQUES IN NEUROPATHOLOGY	1	Practical application of stains	Dr.Samar	

Selective Course in

N°	Date	Lecture	Staff Signature

N°	Date	Lecture	Staff Signature

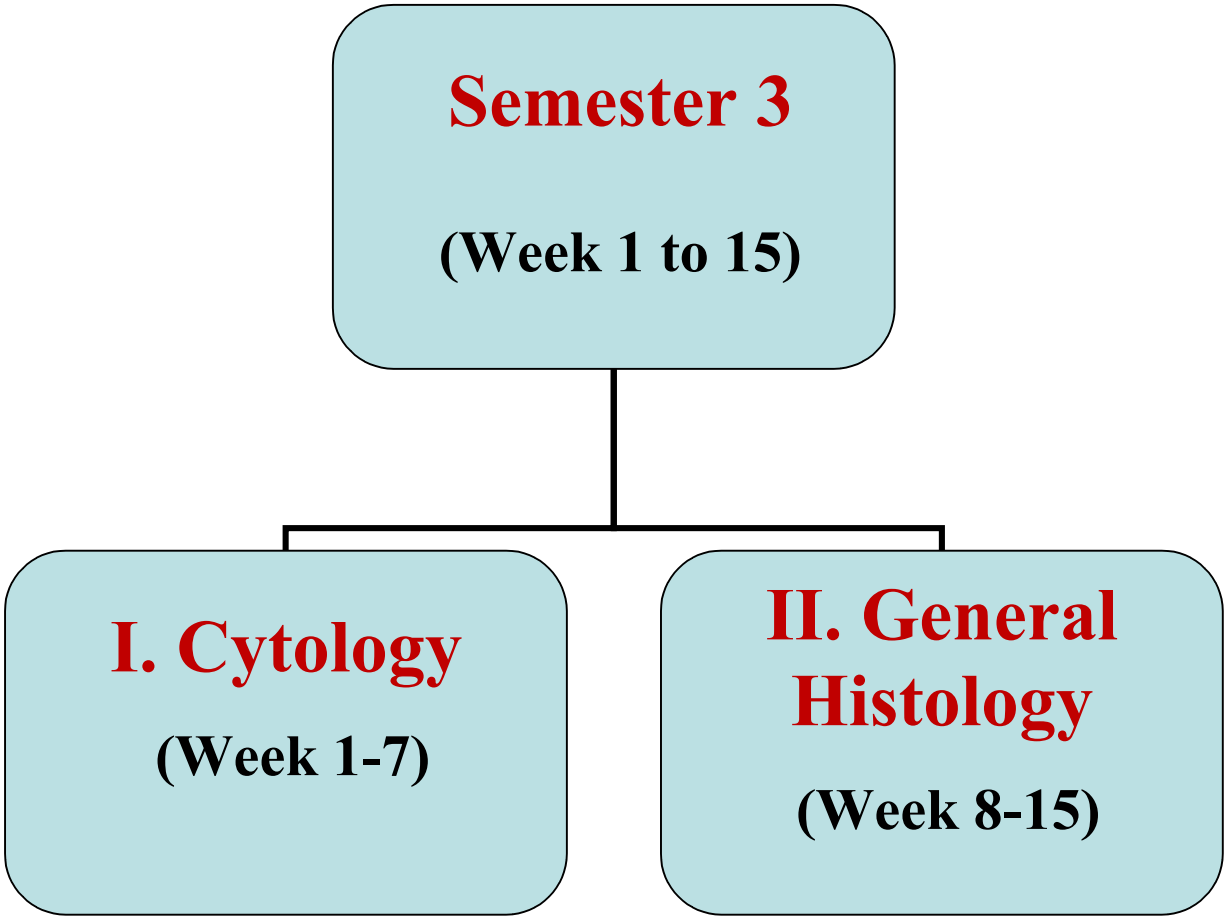
N°	Date	Lecture	Staff Signature

II. Second Part of Master Degree

(Semester 3 & 4)

Course	Credit Hours		Course Code	
Histology and Cell Biology	15	13	HIST 502	I. Cytology
				II. General Histology
				III. Special Histology
				IV. Neuro-histology
Elective		2	HIST 502 IH	Immunohistochemistry
			HIST 502 P	General Chemistry
Practical Activities	10		HIST 502 P	Practical activities

Histology and Cell Biology



I. Cytology

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Week	Date	Lecture			Practical		Staff	
		N°	Hrs	Topic	Hrs	Topic	Name	Signature
Week 1	/ /	1	2	-Introduction for histology (principles and techniques)	1	-Preparation of paraffin section and staining	Dr. Nazik	
	/ /	2	2	-Microscopy: principles, types and applications -Microscopy: phase contrast and differential phase microscope – Mercury lamps	2	-Interpretation of slides	Dr. Nazik	
	/ /	3	2	-Microscopy: Ultraviolet, fluorescence microscopy, confocal laser, atom force, Lumneling and probe, scanning electron microscope. -Preparation of sections for TEM and SEM.	2	-Types of microscopes, PPT and interpretation of EM photographs	Dr. Nazik	
Week 2	/ /	1	2	-Principles, types and application of electron microscope. -Introduction for histochemical methods.	1	-Alkaline phosphatase -Succinic dehydrogenase	Dr. Nazik	
	/ /	2	2	-Cell membrane (molecular structure) -Cell coat -Differential centrifugation and density gradient centrifugation	2	-Staining of cell coat -E/M photographs of the cell coat	Dr. Nazik	
	/ /	3	2	- Function of the cell membrane	2	-Endocytosis & exocytosis	Dr. Nazik	

Week	Date	Lecture			Practical		Staff	
		N°	Hrs	Topic	Hrs	Topic	Name	Signature
Week 3	/ /	1	2	-Mitochondria: structure, function and diseases -Types of ATPases	1	-Staining and demonstration of mitochondria	Dr. Nazik	
	/ /	2	2	-Endomembranous system: *rER *Ribosomes *sER	2	-Basophilia of the cytoplasm -EM photographs	Dr. Nazik	
	/ /	3	2	-Endomembranous system: *Golgi apparatus *lysosomes and clinical hint	2	-Demonstration of Golgi apparatus for light microscopy -EM photographs	Dr. Nazik	
Week 4	/ /	1	2	-Peroxisomes and clinical hint -Intracytoplasmic vesicle trafficking -Endosomes	1	-Principles of immunohistoche mistry	Dr. Nazik	
	/ /	2	2	-Microtubules -Centriole -Cilia-flagella -Clinical hint	2	-Iron Hx for centriole -Demonstration of the cilia	Dr Wafaa	
	/ /	3	2	-Microfilaments -Intermediate filaments -Thick filaments -Clinical hint	2	-Demonstration of microfilaments -Staining of CHO (PAS and Best Carmine)	Dr. Wafaa	

Week	Date	Lecture			Practical		Staff	
		N°	Hrs	Topic	Hrs	Topic	Name	Signature
Week 5	/ /	1	2	-Cell inclusions: stored food, pigments, crystals. -Cytosol and clinical hint.	1	-Staining of lipids (Sudan III and Sudan black)	Dr. Wafaa	
	/ /	2	2	-Nucleus : *Introduction *Nuclear envelope *Nuclear pores	2	-Demonstration of different types of nuclei Feulgin reaction for DNA	Dr. Nawal	
	/ /	3	2	-Nucleus: *Nucleoulus *Nuclear sap *Nuclear lamina (clinical hint) *Dynamics and regulation	2	-EM photographs -Methylene green pyronin stain	Dr. Nawal	
Week 6	/ /	1	2	-Chromatin: *Molecular structure *Clinical hint *Sex chromatin	1	-Interpretation of chromatin photographs and sex chromatin	Dr. Nawal	
	/ /	2	2	-Morphology of chromosomes -Cell cycle (Interphase and mitosis) -Control of cell cycle	2	-Interpretation of electro photographs of mitotic division	Dr. Nawal	
	/ /	3	2	-Meiotic cell division: *Oogenesis *Spermatocytogenesis	2	-Interpretation of meiotic cell division photographs	Dr. Nawal	
Week 7	/ /	1	2	-Karyotyping -Chromosomal anomalies	1	-Interpretation of karyographs -Banding techniques	Dr. Nawal	
	/ /	2	2	-Autoradiography	2	-Interpretation of karyographs showing chromosomal anomalies	Dr. Nawal	
	/ /	3	2	-Mitotic figures -Mitotic Index -Hybridization technique	2	-Interpretation of mitotic figures	Dr. Nawal	

II. General Histology

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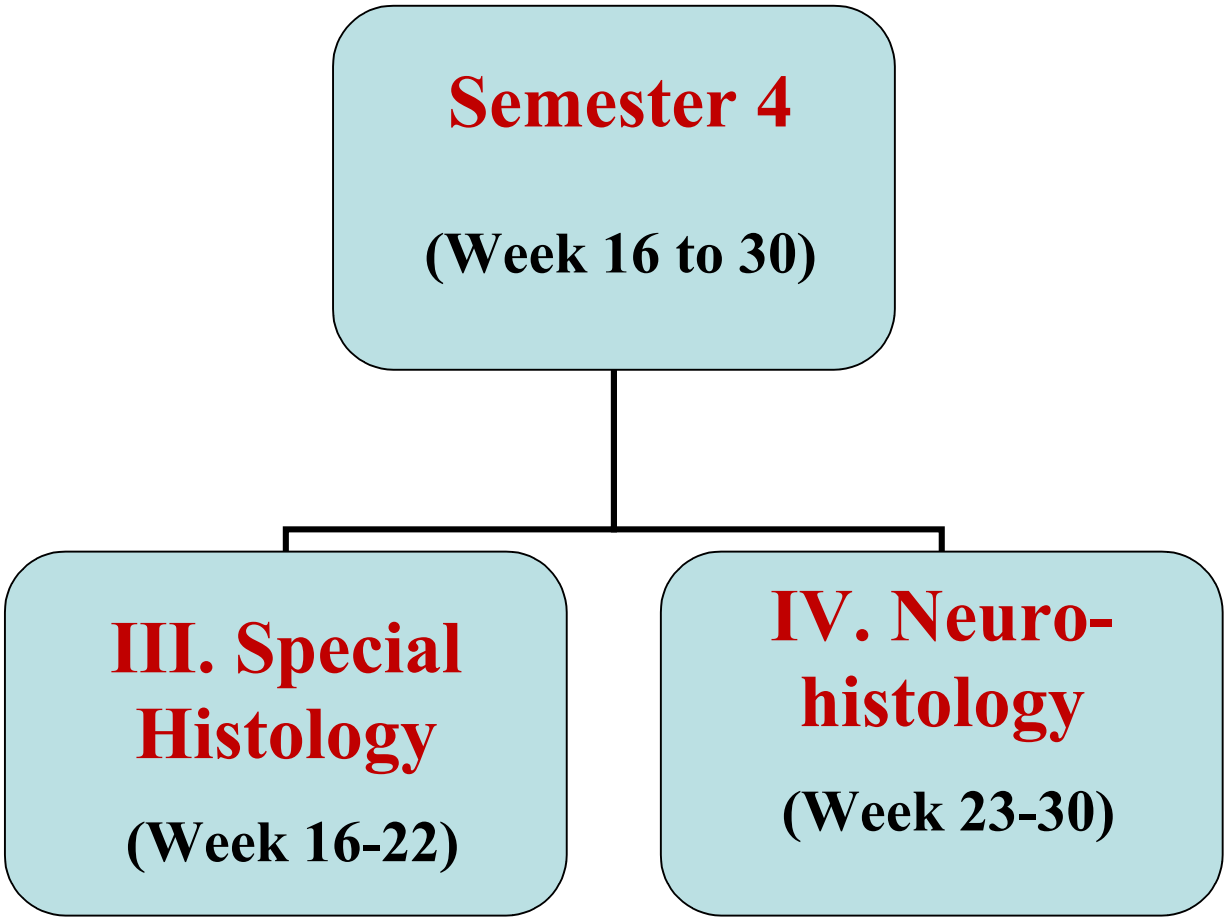
Week	Date	Lecture			Practical		Staff	
		N°	Hrs	Topic	Hrs	Topic	Name	Signature
Week 8	/ /	1	3	-Covering epithelium -Glandular epithelium	1	-Paraffin sections of simple epithelium	Dr. Amany	
	/ /	2	2	-Basement membrane -Neuroepithelium -Cell junctions	2	-Paraffin sections of striated & neuroepithelium	Dr. Amany	
	/ /	3	2	-C.T. fibres -C.T. matrix	2	-Paraffin sections of fibrous C.T.	Dr. Doria	
Week 9	/ /	1	3	-C.T. cells	1	-Sections of adipose C.T.	Dr. Doria	
	/ /	2	2	-C.T. proper	2	-Sections of elastic C.T.	Dr. Doria	
	/ /	3	2	-Cartilage	2	-Paraffin sections of different types of cartilage	Dr. Doria	
Week 10	/ /	1	3	-Bone cells	1	-Sections of cancellous bone	Dr. Doria	
	/ /	2	2	-Types of bones ossification	2	-Sections of compact bone	Dr. Doria	
	/ /	3	2	-Skeletal muscle fibre -Triad of tubular system -Classification of muscle fibres -Cardiac muscle fibres	2	-Paraffin sections of skeletal muscles	Dr. Dalia Refaat	
Week 11	/ /	1	3	-Wall of the heart Valves & conducting system -Moderator band	1	-Paraffin sections of the wall of the heart & moderator band	Dr. Dalia Refaat	
	/ /	2	2	-Erythrocytes -Thrombocytes	2	-Preparation &staining of blood film	Dr. Amany	
	/ /	3	2	-Leucocytes -Haemocytopoiesis	2	-Preparation &staining of blood film	Dr. Amany	

Week	Date	Lecture			Practical		Staff	
		N°	Hrs	Topic	Hrs	Topic	Name	Signature
Week 12	/ /	1	3	-General structure of blood vessels -Arteries -Veins	1	-Paraffin sections of medium-sized artery & vein	Dr. Amal	
	/ /	2	2	-Arterio-venous connection: 1.Blood capillaries 2.Blood sinusoids 3.A-V anastomosis	2	-Paraffin sections of Aorta and Inferior vena cava	Dr. Amal	
	/ /	3	2	-The neuron -The nerve fibre -The peripheral nerve trunk	2	-Paraffin sections of nerve trunk	Dr. Amal	
Week 13	/ /	1	3	-Nerve ganglia -The synapse The nueroglia	1	-Paraffin sections of the spinal & sympathetic ganglia	Dr. Amal	
	/ /	2	2	-Degeneration -Regeneration -Stain for degenerating nerve fibres	2	-Examination of the paraffin sections of the nervous system	Dr. Amal	
	/ /	3	2	-Non capsulated lymphoid follicle -Lymph node	2	-Sections of the lymph node	Dr. Doria	
Week 14	/ /	1	3	-Spleen	1	-Sections of the spleen	Dr. Doria	
	/ /	2	2	-Thymus gland	2	-Sections of the thymus gland	Dr. Doria	
	/ /	3	2	-The conducting portion of the respiratory system	2	-Sections of trachea	Dr. Dalia Refaat	
Week 15	/ /	1	3	-The respiratory portion of the respiratory system	1	-Sections of the lung	Dr. Dalia Refaat	
	/ /	2	2	-Blood air barrier -Alveolar macrophage -The pleura -Blood supply of the lung	2	-Examination of prepared sections	Dr. Dalia Refaat	
	/ /	3	2	-The macrophage system	2	-Staining of macrophages	Dr. Amany	


Semester 4
(Week 16 to 30)
III. Special Histology
(Week 16-22)
IV. Neuro-histology
(Week 23-30)

III. Special Histology

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Week	Date	Lecture			Practical		Staff	
		N°	Hrs	Topic	Hrs	Topic	Name	Signature
Week 16	/ /	1	3	-Epidermis of thick skin	2	-Thick skin preparation	Dr. Essam	
	/ /	2	2	-Dermis of thick skin and Sweat glands	1	-Urinary bladder Preparation	Dr. Essam	
	/ /	3	2	-Thin skin and hair follicle	2	-Thin skin preparation	Dr. Essam	
Week 17	/ /	1	3	-Urinefous tubule of the kidney	2	-kidney (Hx&E)	Dr. Essam	
	/ /	2	2	-Juxtaglomerular apparatus and urinary passages	1	-Ureter (Gelatine Carmine) -Ureter (Mallory)	Dr. Essam	
	/ /	3	2	-Oral cavity -Esophagus	2	-Tongue dog and rabbit -Esophagus	Dr. Shireen	
Week 18	/ /	1	3	-Stomach - Gastro-esophageal junction	2	-Stomach - Gastro-esophageal junction	Dr. Shireen	
	/ /	2	2	-Small intestine - Pyloro-duedenal junction	1	Small intestine - Pyloro-duedenal junction	Dr. Shireen	
	/ /	3	2	-Small intestine - Pyloro-duedenal junction	2	Small intestine - Pyloro-duedenal junction	Dr. Shireen	
Week 19	/ /	1	3	- Large intestine -Recto-anal junction	2	- Large intestine -Recto-anal junction	Dr. Shireen	
	/ /	2	2	-Classification of digestive glands -Types of salivary glands -Structure of salivary glands	1	-Dissection of digestive glands	Dr. Awny	
	/ /	3	2	-Pancreas (General structure, exocrine part) -Pancreas (Islets of langerhans)	2	-Sectioning and staining of digestive glands	Dr .Essam	

Week	Date	Lecture			Practical		Staff	
		N°	Hrs	Topic	Hrs	Topic	Name	Signature
Week 20	/ /	1	3	-Liver (lobules) -Liver(hepatocytes, biliary system) -Medical application	2	-Staining of digestive glands Hx, PAS, Mallory	Dr. Awny	
	/ /	2	2	-Development of pituitary gland -Histology of pars distalis -Structure of pars nervosa -Blood supply, medical application	1	-Dissection of endocrine glands	Dr. Awny	
	/ /	3	2	-Structure of suprarenal cortex -Structure of suprarenal medulla -Blood supply, medical application	2	-Staining of endocrine glands Hx, special stains	Dr. Awny	
Week 21	/ /	1	3	-Thyroid gland -Parathyroid gland, medical application -Pineal gland	2	-Methods of identification	Dr. Awny	
	/ /	2	2	-Seminal tubule and Sertoli cells - Spermatogensis - Intertesticular ducts	1	-Dissection of male genital system -Sectioning of male genital system	Dr. Zeinab Sakkara	
	/ /	3	2	- Excretory genital ducts - Accessory glands - Penis and male urethrae	2	-Staining by different special stains and identification of male genital tract	Dr. Zeinab Sakkara	
Week 22	/ /	1	3	-Development of the ovary -Ovarian follicles	1	-Dissection of female genital tract	Dr. Zeinab Sakkara	
	/ /	2	2	- Follicular growth - Ovulation and corpus luteum -Uterine tube	2	-Sectioning of female genital system	Dr. Zeinab Sakkara	
	/ /	3	2	-Uterus, placenta, vagina - Mammary gland	2	-Staining by different special stains and identification of female genital tract	Dr. Zeinab Sakkara	

IV. Neurophysiology

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Week	Date	Lecture			Practical		Staff	
		N°	Hrs	Topic	Hrs	Topic	Name	Signature
Week 23	/ /	1	2	Meninges	2	Slides	Dr. S. Gawish	
	/ /	2	2	CSF	2	Slides	Dr. S. Gawish	
	/ /	3	2	Spinal Cord	1	Diagrams	Dr. S. Gawish	
Week 24	/ /	1	2	Ascending Tracts	2	Slides	Dr. S. Gawish	
	/ /	2	2	Ascending Tracts	2	Slides	Dr. S. Gawish	
	/ /	3	2	Descending Tracts	1	Diagrams	Dr. S. Gawish	
Week 25	/ /	1	2	Short Tracts	2	Slides	Dr. S. Gawish	
	/ /	2	2	Medulla	2	Slides	Dr.Nisreen	
	/ /	3	2	Medulla	1	Diagrams	Dr.Nisreen	
Week 26	/ /	1	2	Reticular Formation	2	Diagrams	Dr.Nisreen	
	/ /	2	2	Pons	2	Slides	Dr.Nisreen	
	/ /	3	2	Pons	1	Slides	Dr.Nisreen	

Week	Date	Lecture			Practical		Staff	
		N°	Hrs	Topic	Hrs	Topic	Name	Signature
Week 27	/ /	1	2	Midbrain	2	Slides	Dr.Nisreen	
	/ /	2	2	Midbrain	2	Slides	Dr.Nisreen	
	/ /	3	2	Ear	1	Diagrams	Dr. S. Asker	
Week 28	/ /	1	2	Ear	2	Slides	Dr. S. Asker	
	/ /	2	2	Eye	2	Slides	Dr. S. Asker	
	/ /	3	2	Eye	1	Diagrams	Dr. S. Asker	
Week 29	/ /	1	2	Eye	2	Slides	Dr. S. Asker	
	/ /	2	2	Eye	2	Slides	Dr. S. Asker	
	/ /	3	2	Receptors	1	Diagrams	Dr. H. Ibrahim	
Week 30	/ /	1	2	Cerebrum	2	Slides	Dr. H. Ibrahim	
	/ /	2	2	Cerebrum	2	Slides	Dr. H. Ibrahim	
	/ /	3	2	Cerebellum	1	Diagrams	Dr. H. Ibrahim	

Elective Course in

N°	Date	Lecture	Staff Signature

N°	Date	Lecture	Staff Signature

III. Thesis

Thesis (10 credit hours)	
English Title	
Arabic Title	
Supervisors	
Date of Registration	
Date of Discussion	

Thesis (10 credit hours)

Summary

Publication From the Thesis	

IV. Scientific Activities

Scientific activities (2 credit hours)

(Thesis discussion, conferences and workshops)

Date	Activity	Supervisor

Date	***Activity***	***Supervisor***

V. Timetable of Master Degree Program

First part (8 credit hours, two semesters)

Semester	Course Code	Course	Total credits		Total teaching hours		% of Attendance	Date (from --to --)	Signature
			Lectures	Practical	Lectures	Practical			
1	HIST 502 HI	Histochemistry							
2									

Second part (15 theoretical + 10 practical credit hours. semesters; 3&4)

Course	Course Code	Course	Total credits		Total teaching hours		% of Attendance	Date (from --to --)	Signature
			Lectures	Practical	Lectures	Practical			
Histology and Cell Biology	HIST 502	I. Cytology							
		II. General Histology							
		III. Special Histology							
		IV. Neuro-histology							
Elective									

سجل شخصي

قسم الأنسجة و بيولوجيا الخلية

كلية طب المنصورة

بيانات شخصية

الإسم:

تاريخ الميلاد:

الحالة الاجتماعية:

العنوان:

التليفون:

عنوان البريد الإلكتروني: