International School of Medicine / Medicine (English)

2023 - 2024 Academic Year

HISTOLOGY & EMBRIYOLOGY

Syllabus

Course Description					
Name	**Code**	**Semester**	**T+A Hour**	**Credit**	**ECTS**
HISTOLOGY & EMBRIYOLOGY	ISM1015199	Yearly	68+24	0	6

Prerequisites Courses	
Recommended Elective Courses	
Language of Instruction	English
Course Level	First Cycle (Bachelor's Degree)
Course Type	Committee Course
Course Coordinator	Assoc.Prof. Seda KARABULUT
Name of Lecturer(s)	Assoc.Prof. Seda KARABULUT, Assist.Prof. Bircan KOLBAŞI
Assistant(s)	
Aim	Students will be able to identify details of Histotechnology.Students will be able to identify details of Microscopes.Students will be able to identify details of Cell Types and Cell Membrane.Students will be able to identify details of Nucleus-Nucleolus.Students will be able to identify details of Golgi-ER.Students will be able to identify details of Mitochondria-Ribosome.Students will be able to identify details of Cell Cytoskeleton.Students will be able to identify details of Epithelial Tissue.Students will be able to identify details of Glandular Epithelial Tissue.Students will be able to details of identify Connective Tissue.Students will be able to identify details of Fat Tissue.Students will be able to identify details of Cartilage Tissue.Students will be able to identify details of Bone Tissue.Students will be able to identify details of Skeletal Muscle Tissue.Students will be able to identify details of Smooth Muscle-Heart Muscle Tissue.Students will be able to identify details of Neurohistology.Students will be able to identify details of Oogenesis.Students will be able to identify details of Spermatogenesis.Students will be able to identify details of Fertilisation.Students will be able to identify details of Implantation.Students will be able to identify details of 2. week of human development.Students will be able to identify details of 3. week of human development.Students will be able to identify details of Neurogenesis.Students will be able to identify details of Organogenesis.Students will be able to identify details of Extraembriyonic membranes.
Course Content	This course contains; Histotechnology.,Microscopes,Cell Types and Cell Membrane,Nucleus-nucleolus,Golgi-ER-Lysosome,Mitochondria-Ribosome,Cytoskeleton,Epithelium,Glandular Epithelium,Connective Tissue,Adipose Tissue,Cartilage tissue,Bone tissue,Skeletal muscle,Smooth muscle-Cardiac muscle,Neurohistology,Oogenesis,Spermatogenesis,Fertilization,Implantation,2 nd week of embryonic development,3 rd week of embryonic development,Neurogenesis,Organogenesis,Extraembriyonic structures,Human birth defects,Head and neck development,Skeletal development,Muscular development,Body cavities.

Course Learning Outcomes	**Teaching Methods**	**Assessment Methods**
Explains microscope types and details.	17, 6, 9	A
Explains the details of cell types and cell membrane.	17, 6, 9	A
Explains the details of the nucleus-nucleolus.	17, 6, 9	A
Explains the details of Golgi-ER-Lysosome.	17, 6, 9	A
Explains the details of Mitochondria-Ribosome.	17, 6, 9	A
Explains the details of the cytoskeleton.	17, 6, 9	A
Explains the details of epithelial tissue.	17, 6, 9	A
Explains the details of the glandular epithelium.	17, 6, 9	A
Explains the details of connective tissue.	17, 6, 9	A
Explains the details of adipose tissue.	17, 6, 9	A
Explains the details of cartilage tissue.	17, 6, 9	A
Explains the details of bone tissue.	17, 6, 9	A
Explains the details of skeletal muscle.	17, 6, 9	A
Explains the details of smooth muscle-cardiac muscle.	17, 6, 9	A
Explains the details of neurohistology.	17, 6, 9	A
Explains the details of oogenesis.	17, 6, 9	A
Explains the details of spermatogenesis.	17, 6, 9	A
Explains the details of fertilization.	17, 6, 9	A
Explains the details of the implantation.	17, 6, 9	A
Explains the details of the 2nd Week of Embryonic Development.	17, 6, 9	A
Explains the details of the 3rd Week of Embryonic Development.	17, 6, 9	A
Explains the details of neurogenesis.	17, 6, 9	A
Explains the details of organogenesis.	17, 6, 9	A
Explains the details of extraembryonic structures.	17, 6, 9	A
Explains the details of human birth defects.	17, 6, 9	A
Explains the details of head and neck development.	17, 6, 9	A
Explains the details of skeletal system development.	17, 6, 9	A
Explains the details of muscle development.	17, 6, 9	A
Explains the details of body cavities.	17, 6, 9	A
Explains the details of histotechnology.	17, 6, 9	A

Teaching Methods	17: Experimental Technique, 6: Experiential Learning, 9: Lecture Method
Assessment Methods	A: Traditional Written Exam

Lecture Schedule

Sequence	**Topics**	**Preliminary Preparation**
1	Histotechnology.	
2	Microscopes	
3	Cell Types and Cell Membrane	
4	Nucleus-nucleolus	

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Lecture Schedule		
Sequence	**Topics**	**Preliminary Preparation**
5	Golgi-ER-Lysosome	
6	Mitochondria-Ribosome	
7	Cytoskeleton	
8	Epithelium	
9	Glandular Epithelium	
10	Connective Tissue	
12	Adipose Tissue	
13	Cartilage tissue	
13	Bone tissue	
14	Skeletal muscle	
15	Smooth muscle-Cardiac muscle	
16	Neurohistology	
17	Oogenesis	
18	Spermatogenesis	
19	Fertilization	
20	Implantation	
21	2 nd week of embryonic development	
22	3 rd week of embryonic development	
23	Neurogenesis	
24	Organogenesis	
25	Extraembriyonic structures	
26	Human birth defects	
26	Head and neck development	
27	Skeletal development	
28	Muscular development	
29	Body cavities	

Evaluation Methods	**Weight(%)**
Midterm Exam	40
General Exam	60

Resources
1. Junqueira's Basic Histology: Text and Atlas McGraw Hill Medical Books 2. Larsen - Human Embryology 3. BRS Embryology, 4. Keith L. Moore (ed.), T. V. N. Persaud (ed.), Mark G. Torchia (ed.)-Before We Are Born_ Essentials of Embryology and Birth Defects-Elsevier