

بسم الله الرحمن الرحيم

University of Al-Nahrain
High Institute for Infertility Diagnosis
& Assisted Reproductive Technologies
Department of Applied Embryology

M.Sc. in Applied Embryology

2019-2020

First course: 15/9/2019 – 30/12/2019

Planned Curriculum

Courses:

1. General Embryology
2. Reproduction
3. Histology
4. Medical Statistics
5. English Language

الفصل الأول: 2019-2020
دراسة الماجستير في علم الأجنة التطبيقي
الموضوع: General Embryology
الوحدات: 3T+3P=4C.H.
Theory



جامعة النهريين
المعهد العالي لتشخيص العقم
والتقنيات المساعدة على الإنجاب
قسم علم الأجنة التطبيقي

NO	Week starting	Lecture Topic	Lecturer
1	15/9/2019	Embryology : Background & introduction	Prof. Dr. Mohammad Oda
2	22/9/2019	General features of development	Prof. Dr. Mohammad Oda
3	29/9/2019	Gametogenesis, Spermatogenesis	Prof. Dr. Mohammad Oda
4	6/10/2019	Gametogenesis, Oogenesis and types of ova	Prof. Dr. Mohammad Oda
5	13/10/2019	Ovulation & fertilization	Prof. Dr. Mohammad Oda
6	20/10/2019	Implantation	Prof. Dr. Mohammad Oda
7	27/10/2019	Mid-term Examination	
8	3/11/2019	Comparative embryology & gastrulation - Morphogenetic movements	Prof. Dr. Mohammad Oda
9	10/11/2019	Pre-implantation embryology – level of Cleavage	Prof. Dr. Mohammad Oda
10	17/11/2019	Formation Trilaminar germ disc- regulation by Homeobox gene	Prof. Dr. Nahla
11	24/11/2019	Development of bilaminar germ disc – fate of mapping	Prof. Dr. Mohammad Oda
12	1/12/2019	Development of germ layers & organogenesis	Prof. Dr. Nahla
13	8/12/2019	Placenta and extra embryonic membranes	Prof. Dr. Nahla
14	15/12/2019	The embryonic and fetal periods	Prof. Dr. Nahla
15	22/12/2019	Molecular aspects of embryonic development	Prof. Dr. Nahla
16	29/12/2019	Hormonal control of development	Prof. Dr. Nahla



Practical

NO	Week starting	Lecture Topic	Lecturer
1	15/9/2019	Demonstration male & female reproductive system in mice & vaginal smear	Prof. Dr. Mohammad Oda
2	22/9/2019	Gametogenesis : Spermatogenesis & oogenesis	Prof. Dr. Mohammad Oda
3	29/9/2019	Examination of mature & immature / Morphologically normal & abnormal sperms in mice & humans	Prof. Dr. Mohammad Oda
4	6/10/2019	Ovulation induction program & fertilization in mice Flushing procedure in normal mating mice	Prof. Dr. Mohammad Oda
5	13/10/2019	Flushing procedure in female mice under ovulation induction program	Prof. Dr. Mohammad Oda
6	20/10/2019	Examination of fertilized & non fertilized oocytes & determination of egg quality of mice with slides	Prof. Dr. Mohammad Oda
7	27/10/2019	Mid-term Examination	
8	3/11/2019	ICSI (I)	Prof. Dr. Mohammad Oda
9	10/11/2019	ICSI (II)	Prof. Dr. Mohammad Oda
10	17/11/2019	Overictomy in female mice+ Vasectomy in male mice	Prof. Dr. Mohammad Oda
11	24/11/2019	Examination of early cleavage embryos & late stages development of mice embryos with slides I	Prof. Dr. Mohammad Oda
12	1/12/2019	Examination of early cleavage embryos & late stages development of mice embryos with slides II	Prof. Dr. Mohammad Oda
13	8/12/2019	Examination & determination the effect of some poison materials on embryonic development in female mice	Prof. Dr. Mohammad Oda
14	15/12/2019	Examination & determination the effect of herbal plants on embryonic development in female mice	Prof. Dr. Mohammad Oda

● **ملاحظة** // يتم الإشراف على الدرس العملي من قبل استاذ مادة النظري وبإشراف أعضاء الهيئة التدريسية من حملة شهادة الماجستير في المعهد.

الفصل الأول: 2019-2020
 دراسة الماجستير في علم الأجنة التطبيقي
 Histology: الموضوع
 3T+3P=4C.H.: الوحدات
 Theory



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No	Week starting	Lecture Topic	Lecturer
1	15/9/2019	Introduction to Histology(I)	Prof. Dr. Nahla
2	22/9/2019	The cell	Prof. Dr. Nahla
3	29/9/2019	Epithelial tissue	Prof. Dr. Nahla
4	6/10/2019	Glandular epithelium	Prof. Dr. Nahla
5	13/10/2019	Connective tissue	Prof. Dr. Nahla
6	20/10/2019	Bone and cartilage	Prof. Dr. Nahla
7	27/10/2019	Mid-term Examination	
8	3/11/2019	Muscular Tissue	Prof. Dr. Nahla
9	10/11/2019	Nervous Tissue	Prof. Dr. Nahla
10	17/11/2019	Endocrine system (I)	Prof. Dr. Nahla
11	24/11/2019	Endocrine system (II)	Prof. Dr. Nahla
12	1/12/2019	Female Reproductive system	Prof. Dr. Nahla
13	8/12/2019	Male Reproductive system	Prof. Dr. Nahla
14	15/12/2019	The heart and blood vessels	Prof. Dr. Nahla
15	22/12/2019	Blood and lymphoid systems	Prof. Dr. Nahla
16	29/12/2019	Apoptosis	Prof. Dr. Nahla



No	Week starting	Lecture Topic	Lecturer
1	15/9/2019	Histological preparation	Prof. Dr. Nahla
2	22/9/2019	Epithelial tissue	Prof. Dr. Nahla
3	29/9/2019	Glandular epithelium	Prof. Dr. Nahla
4	6/10/2019	Connective tissue	Prof. Dr. Nahla
5	13/10/2019	Bone and cartilage	Prof. Dr. Nahla
6	20/10/2019	Nervous Tissue	Prof. Dr. Nahla
7	27/10/2019	Mid-term Examination	
8	3/11/2019	Muscular Tissue	Prof. Dr. Nahla
9	10/11/2019	Endocrine system (I)	Prof. Dr. Nahla
10	17/11/2019	Endocrine system (II)	Prof. Dr. Nahla
11	24/11/2019	Female Reproductive system	Prof. Dr. Nahla
12	1/12/2019	Male Reproductive system	Prof. Dr. Nahla
13	8/12/2019	The heart and blood vessels	Prof. Dr. Nahla
14	15/12/2019	Blood and lymphoid systems	Prof. Dr. Nahla
15	22/12/2019	Reveiw	Prof. Dr. Nahla

- **ملاحظة** // يتم الاشراف على الدرس العملي من قبل استاذ مادة النظري وبأشراف اعضاء الهيئة التدريسية من حملة شهادة الماجستير في المعهد.

الفصل الأول: 2019-2020
دراسة الماجستير في علم الأجنة التطبيقي
الموضوع: Reproduction
الوحدات: 2T=2C.H.



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Theory

NO	Week starting	Lecture Topic	Lecturer
1	15/9/2019	Physiological anatomy of female Reproductive system	Le.dr. mfedali
2	22/9/2019	Puberty and menarche	Assist. Prof. Dr.Manal Taha
3	29/9/2019	Normal puberty and abnormal gender differentiation in female	Le.dr. mfedali
4	6/10/2019	Monthly menstrual cycle	Assist. Prof. Dr.Manal Taha
5	13/10/2019	Monthly menstrual cycle (Ovulation and luteal phase)	Assist. Prof. Dr.Manal Taha
6	20/10/2019	Follicular phase	Assist. Prof. Dr.Hayder
7	27/10/2019	Mid-term Examination	
8	3/11/2019	Monthly endometrial cycle and menstruation	Le.dr. mfedali
9	10/11/2019	Menopause and Andropause	Le.dr. mfedali
10	17/11/2019	Physiological anatomy of male Reproductive system	Prof. Dr.Ula Mohamed
11	24/11/2019	Normal puberty and abnormal gender differentiation in male	Assist. Prof. Dr.Hayder
12	1/12/2019	Hypothalamic and Pituitary hormonal control of male sexual functions	Assist. Prof. Dr.Hayder
13	8/12/2019	Sperm capacitation and acrosomal reaction	Assist. Prof. Dr.Hayder
14	15/12/2019	Male sexual acts and psychological effect on sperm production	Prof. Dr.Ula Mohamed



NO	Week starting	Lecture Topic	Lecturer
1	15/9/2019	Collection of data & sampling	Assist. Prof. Dr. waleed
2	22/9/2019	Population & normal distribution curve	Assist. Prof. Dr. waleed
3	29/9/2019	Presentation of statistics, graphs, tables & others	Assist. Prof. Dr. waleed
4	6/10/2019	Measures of central tendency, mean, mode, median	Assist. Prof. Dr. waleed
5	13/10/2019	Measures of dispersion, standard deviation & standard error of the mean	Assist. Prof. Dr. waleed
6	20/10/2019	Tests of significance, t-test, F-test & Chi-square I	Assist. Prof. Dr. waleed
7	27/10/2019	Mid-term Examination	
8	3/11/2019	Tests of significance, t-test, F-test & Chi-square II	Assist. Prof. Dr. waleed
9	10/11/2019	Correlation	Assist. Prof. Dr. waleed
10	17/11/2019	Regression	Assist. Prof. Dr. waleed
11	24/11/2019	Experimental designs	Assist. Prof. Dr. waleed
12	1/12/2019	Clinical trials, single blind, double blind & multi – centre studies	Assist. Prof. Dr. waleed
13	8/12/2019	Computer packages for statistical evaluation	Assist. Prof. Dr. waleed
14	15/12/2019	Applications of statistical methods in research	Assist. Prof. Dr. waleed

الفصل الأول: 2019-2020
 دراسة الماجستير في علم الأجنة التطبيقي
 English:الموضوع
 1T=1C.H.:الوحدات
 Theory



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NO	Week starting	Lecture Topic	Lecturer
1	15/9/2019	Basic English sentences – the study of cell structure	le. Dr.Sahar
2	22/9/2019	Tenses in English – part 1 – Epithelial tissue	le. Dr.Sahar
3	29/9/2019	Tenses in English – part 2	le. Dr.Sahar
4	6/10/2019	Punctuations – Genes & Chromosomes	le. Dr.Sahar
5	13/10/2019	Articles	le. Dr.Sahar
6	20/10/2019	Sources of energy	le. Dr.Sahar
7	27/10/2019	Mid-term Examination	
8	3/11/2019	Nouns in English – The limits of medicine	le. Dr.Sahar
9	10/11/2019	Adjectives – The limits of medicine	le. Dr.Sahar
10	17/11/2019	Adverbs – A Mongol Baby	le. Dr.Sahar
11	24/11/2019	- Prepositions – Neoplasia	le. Dr.Sahar
12	1/12/2019	- Passives The nervous system	le. Dr.Sahar
13	8/12/2019	- Conditional – Proteins	le. Dr.Sahar
14	15/12/2019	Conjunctions	le. Dr.Sahar