האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Endocrinology and Reproduction - 96205

Last update 28-07-2021

HU Credits: *5*

Degree/Cycle: *1st degree (Bachelor)*

Responsible Department: *Medicine*

Academic year: *0*

Semester: *1st Semester*

Teaching Languages: *Hebrew*

Campus: *Ein Karem*

Course/Module Coordinator: *Prof. Yuval Dor*

Coordinator Email: *Yuvald@ekmd.huji.ac.il*

Coordinator Office Hours: *Sunday 0900-1100*

Teaching Staff:

Prof Yuval Dor,
Dr. Dan Ben Zvi,
Dr. Michal Shoshkes-Carmel,
Dr. Yaniv Elkouby,
Prof Ehud Cohen,
Prof Yossi Buganim

Course/Module description:
Pre-clinical endocrinology and reproductive system

Course/Module aims:
Describe basic concepts in endocrinology, including anatomy histology and function of the main endocrine organs, and of the reproductive system.

Learning outcomes - On successful completion of this module, students should be able to:
To explain principles of hormone action, to describe principles of structure and function of main endocrine organs and the reproductive system.

Attendance requirements(%):
None (labs, dissections, PBL obligatory)

Teaching arrangement and method of instruction: Frontal, laboratory, PBL.

Course/Module Content:
Endocrine system: General principles of functions of the endocrine system, types of hormones, types of hormone receptors. Hypophysis: function, structure and division into anatomical and histological regions. Structure and functional connection between the nervous and epithelial parts of the glands, portal system. Thyroid gland: unique structure, existence of follicles, extracellular storage, function of gland hormones. Parathyroid gland: structure and cell types, function of PTH. Adrenal glands: typical structure of steroid-secreting cells, cortex and medulla, zoning of cortex, neural origin of adrenal medulla, the functional relationship between the cortex and medulla, function of adrenal hormones. Islets of Langerhans in pancreas: cell types, secreted hormones and their functions.
Obesity and energy homeostasis.

Male reproductive system: structure of testis, development of sperm cells in the seminiferous tubules, spermatogenic cells, Sertoli and Leydig cells, intratesticular tubules and extratesticular tubes (epididymus, vas deferens, penis), accessory

glands: prostate gland, seminal vesicles, bulbouretral gland

Female reproductive system: structure of ovaries, development of follicles in the cortex of the ovary and the structure of the follicle in each developmental stage, hormonal control of follicle development. Ovulation and creation of corpus luteum, fertilization of oocyte. Atresia of follicles. Oviducts: general structure and division into four structural regions. Adaptation of each region to its function. Uterus: structure, menstrual cycle, structural changes in uterine wall throughout the cycle. Cervix, vagina, mammary gland: structure, structural changes in different life stages: before and between pregnancies, during pregnancy and during lactation.

Aging: basic principles

Required Reading:
1. Guyton and Hall Textbook of Medical Physiology, 13th edition.
2. HISTOLOGY, a Text and Atlas, by Ross H.M., Gordon I. K. and Pawlina W., LWW, 6th edition (2010(

Additional Reading Material:

Course/Module evaluation:
End of year written/oral examination 72 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 0 %
Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 20 %
Other 8 %
Anatomy

Additional information: