



**The University of Jordan**

**Accreditation & Quality Assurance Center**

# **COURSE Syllabus**

1	Course title	Endocrinology
2	Course number	0308232
3	Credit hours (theory)	2
	Contact hours (theory, practical)	Tuesday-Thursday
4	Prerequisites/co-requisites	Biochemistry
5	Program title	Bachelor of Medical Laboratory Sciences
6	Program code	
7	Awarding institution	University of Jordan
8	Faculty	Science
9	Department	Medical Laboratory Sciences
10	Level of course	Second Year
11	Year of study and semester (s)	First Summer Semester 2017/2018
12	Final Qualification	B.Sc. in Medical Laboratory Sciences
13	Other department (s) involved in teaching the course	none
14	Language of Instruction	English
15	Date of production/revision	2017

#### 16. Course Coordinator:

Professor Muayad M. Abboud, PhD  
 Part-timer, Phone number: 0796875550  
 Email: muayadabboud@gmail.com

Office hours: by appointment

#### 17. Other instructors:

None

#### 18. Course Description:

This course describes the role of endocrine system to maintain the body homeostasis, through the specific signalling system of hormone molecules. These chemical molecules possess a powerful regulatory capacity for controlling the major vital metabolic activities that ensure an appropriate healthy state of the human body. The scope of this course includes some basic knowledge on the nature of hormones as signal molecules and their diverse mechanism of actions. The role of each individual endocrine gland and the type of hormones secreted by these glands. Emphasis will be made on the physiological role of each hormone, its mode of secretion from the gland and the

regulatory system that controls this secretion process. Also, there will be a brief description of the main pathological implications that may arise from the failure of this regulatory endocrine system to operate properly inside the human body.

### **19. Course aims and outcomes:**

#### **A- Aims:**

This course will introduce students to the integration of endocrine system to other regulatory systems in the body like the nervous system as well as to other hormones not secreted by the endocrine system like those secreted by the body tissues and organs.

**B- Intended Learning Outcomes (ILOs):** Upon successful completion of this course students will be able to learn about...

1. The coordination between the endocrine and nervous systems.
2. The main differences between endocrine and exocrine systems
3. Factors that determine the onset of secretion for various hormones.
4. How the hormones select their target cellular receptors, though they compete with much larger and higher number of circulatory molecules.
5. Methods of testing hormone concentrations in the blood despite their minute circulatory levels.
6. The differences between hormones and paracrine molecules.
7. How the circulatory hormones can be manipulated to test certain physiological processes like pregnancy

**20. Topic Outline and Schedule:**

<p><u>Topics to be covered</u></p> <p>1. Introduction :</p> <ul style="list-style-type: none"> <li>• Definition, function, components of endocrine system</li> <li>• Hormones as signal molecules: <ul style="list-style-type: none"> <li>• Type of hormones, their synthesis and release</li> <li>• Nature of hormone receptors</li> </ul> </li> </ul> <p>2. Mechanism of hormone action</p> <p>A. Interaction of water soluble hormones at the surface receptor of target cells</p> <ul style="list-style-type: none"> <li>• Second messenger as signal transducer</li> <li>• Protein kinase activation system</li> </ul> <p>B. Interaction of water-insoluble hormones at the nuclear receptors of the target cells</p> <p>3. Hormones secreted by the endocrine glands</p> <p>4. Hypothalamus-pituitary axis</p> <p style="text-align: center;">Mid-term exam</p> <p>5. Hypothalamus and type of hormonal control</p> <p>6. Hypothalamus and type of hormones secreted</p> <p>7. Pituitary and type of hormones secreted</p> <p>8. Thyroid and type of hormones secreted</p> <p>9. Adrenal and type of hormones secreted</p> <p>10. Pancreas and type of hormones secreted</p> <p>11. Gonads and type of hormones secreted</p> <p>12. Hormones secreted by tissues other than the endocrine glands</p> <p style="text-align: center;">Final exam</p>	
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**21. Teaching Methods and Assignments:**

<p>Development of ILOs is promoted through the following <u>teaching and learning methods</u>:</p> <p>Interactive lecture using data show</p> <p>Office hour discussions</p> <p>Quizzes</p>
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**22. Evaluation Methods and Course Requirements:**

<p>Opportunities to demonstrate achievement of the ILOs are provided through the following <u>assessment methods and requirements</u>:</p> <p>Exams</p>
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**23. Course Policies:**

A- Attendance policies: Regular class attendance is expected, attendance by seating number.

B- Absences from exams and handing in assignments on time: Reporting a valid reason of absence is accepted.

C- Health and safety procedures: All students should comply with the university health and safety procedures

D- Honesty policy regarding cheating, plagiarism, misbehaviour: All students should comply with the university Honesty policy regarding cheating, plagiarism, misbehaviour

E- Grading policy: Depends on average

First Exam	30 %
Second Hour Exam	30 %
Final Exam	40 %

**24. Required equipment:**

Available university services that support achievement in the course:

Data Show Projector, internet access

**25. References:**

The Endocrine System  
Gail Jenkins, Christopher Kemnitz, Gerard Tortora

**26. Additional information:**

None

Name of Course Coordinator: Professor Muayad Abboud Signature: ----- Date:

13/01/2018

Head of curriculum committee/Department: ----- Signature: -----

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Head of Department: ..... Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----

Assurance

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