

## Course Syllabus

1	<b>Course title</b>	Endocrinology
2	<b>Course number</b>	0308232
3	<b>Credit hours</b>	2 hrs
	<b>Contact hours (theory, practical)</b>	2 hrs (2 theory) week
4	<b>Prerequisites/corequisites</b>	Human Anatomy and Physiology
5	<b>Program title</b>	Bachelor of Clinical Laboratory Sciences
6	<b>Program code</b>	0308
7	<b>Awarding institution</b>	University of Jordan
8	<b>School</b>	Science
9	<b>Department</b>	Clinical Laboratory Sciences
10	<b>Course level</b>	Second Year
11	<b>Year of study and semester (s)</b>	Second Semester 2023/2024
12	<b>Other department (s) involved in teaching the course</b>	
13	<b>Main teaching language</b>	English
14	<b>Delivery method</b>	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online
15	<b>Online platforms(s)</b>	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
16	<b>Issuing/Revision Date</b>	25/2/2024

### 17 Course Coordinator:

<b>Name:</b> Abeer AlQatati	<b>Contact hours:</b>
<b>Office number:</b> 1 <sup>st</sup> Floor-Biology building	<b>Phone number</b> 0797994080
<b>Email:</b> a.alqatati@ju.edu.jo	

### 18 Other instructors:

Name:
Office number:
Phone number:
Email:
Contact hours:

**19 Course Description:**

This course describes the study of endocrine hormones and of the organs involved in endocrine hormone release, this science also deals with the biosynthesis, chemistry and storage of hormones, the factors and mechanisms controlling hormonal secretion, the cellular mechanisms of hormone action, and the pathophysiology of endocrine system dysfunction.

## 20 Course aims and outcomes:

### A- Aims:

This is an introductory course which can provide the student with some basic knowledge on endocrine glands and their secretions.

### B- Students Learning Outcomes (SLOs):

For purposes of mapping the course SLOs to the MLS program SLOs, upon the successful completion of the program, graduates are expected to be able to:

**SLO(1).** Understand and apply the theoretical foundations of medical laboratory sciences to accurately calibrate and operate advanced laboratory equipment.

**SLO(2).** Demonstrate knowledge of safety protocols, Ministry of Health regulations, and environmental preservation practices when handling samples of pathogens and chemical/biological risks.

**SOL(3).** Acquire in-depth technical knowledge to stay abreast of scientific advancements and actively participate in local and global applied research in the field.

**SOL(4).** Perform diverse analyses and effectively interpret results for various clinical samples across laboratory disciplines such as hematology, clinical chemistry, microbiology, urine analysis, body fluids, molecular diagnostics, and immunology.

**SOL(5).** Apply practical training to solve complex problems, troubleshoot issues, and interpret results, ensuring a connection between data and specific medical conditions for precise diagnosis.

**SOL(6).** Show effective communication skills to convey information accurately and appropriately in a laboratory setting.

**SOL(7).** Demonstrate a commitment to lifelong learning and innovation by applying modern techniques, critically analyzing information, and contributing to the creation and application of new knowledge in medical laboratory sciences which fulfil the requirements of national and international CBD.

**SOL(8).** Uphold professional behavior, ensuring the confidentiality of client information, and respecting client privacy throughout all aspects of laboratory work.

**SOL(9).** Apply managerial skills that align with quality assurance, accreditation, quality improvement, laboratory education, and resource management, showcasing competence in the effective administration of laboratory practices.

Descriptors	ILO/ID	Program SLOs	SLO (3)	SLO (4)	SLO (5)
		Course SLOs			
Knowledge	A1	Comprehend the processes involved in the biosynthesis, chemistry, and storage of hormones.	X		
	A2	Understand how hormones exert their effects at the cellular level and gain knowledge of the pathophysiology of dysfunctions within the endocrine system.	X		
Skills	B1	Perform laboratory techniques related to the study of hormones, including assays and analyses.		X	
	B2	Analyze and interpret data from hormonal assays and experiments.		X	
Competence	C1	Apply knowledge and skills to contribute to the diagnosis and management of endocrine disorders.			X
	C2	Identify and propose solutions to endocrine system dysfunctions and hormonal imbalances.			X

## 21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1	Introduction to Endocrinology	A1, A2	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	1.2	Introduction to Endocrinology	A1, A2	Face to Face	Lecture Room	Synchronous	Written Exams	
2	2.1	Hypothalamus	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	2.2	Hypothalamus	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
3	3.1	Anterior pituitary	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David

	3.2	Anterior pituitary	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Gardner and Dolores shoback, 9th edition
4	4.1	Anterior pituitary	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Clinical chemistry 7th edition by Bishop
	4.2	Posterior pituitary	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
5	5.1	Thyroid gland	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	5.2	Thyroid gland	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
6	6.1	Thyroid gland	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	6.2	Thyroid gland	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
7	7.1	Adrenal cortex	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	7.2	Adrenal cortex	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
8	8.1	Adrenal cortex	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	8.2	Adrenal medulla	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
9	9.1	Pancreas	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	9.2	Pancreas	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	

10	10.1	Pancreas	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	10.2	Diabetes mellitus	B1, B2, C1, C2	Face to Face	Lecture Room	Synchronous	Written Exams	
11	11.1	Parathyroid gland	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	11.2	Parathyroid gland	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
12	12.1	Female Gonads	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	12.2	Female Gonads	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
13	13.1	Male Gonads	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	13.2	Male Gonads	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
14	14.1	Thymus gland	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition
	14.2	Thymus gland	A1, A2, B1, C1	Face to Face	Lecture Room	Synchronous	Written Exams	
15	15.1	Modern techniques used for hormonal assays	B1, B2, C1, C2	Face to Face	Lecture Room	Synchronous	Written Exams	Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9th edition

## 22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Assignments					
Quizzes					
Lab Reports					
First Exam	30	Introduction, hypothalamus, pituitary, thyroid		7	In campus
Second Exam or (Mid Exam)	20	Adrenal gland		10	In campus
Final Exam	50	All chapters		16	In campus

## 23 Course Requirements

**(e.g: students should have a computer, internet connection, webcam, account on a specific software/platform...etc):** Students are directed and encouraged to use all possible resources:

- a) use the internet as a learning source.
- b) a series of short movies is needed.

## 24 Course Policies:

### A- Attendance policies:

- Attend and participate in all classes: attendance will be taken. Class time will be used to discuss, elaborate, expand, etc., on the written modules. This may include formal/informal lectures, audio visual presentations, demonstrations, labs, etc.

### B- Absences from exams and handing in assignments on time:

1. A student who has been absent for 15% or more of the total hours of any course, including absences for medical or compassionate reasons, may be required to withdraw from that particular course.
2. Students who miss quizzes or examinations will automatically be assigned a mark of zero unless the respective instructor, or the Program Head, has been notified of the reason for absence *PRIOR* to the commencement of the exam. Acceptable reasons will be evaluated at the time (e.g., illness - medical



certificate may be required, serious illness or death in the family, etc.). Supplemental examinations may be allowed in legitimate cases.

### C- Health and safety procedures:

All students need to be immunized against hepatitis B, immunization certificate must be forwarded to the coordinator of the hospital training. Pregnancy affects immunization and it is the responsibility of the student to notify the health person as soon as possible of her pregnancy. If there are fees related to immunization, it is the responsibility of the student. D- Honesty policy regarding cheating, plagiarism, misbehavior: All students should comply with the university Honesty policy regarding cheating, plagiarism, misbehavior

E- Grading policy: Depends on the median value

F- Available university services that support achievement in the course: Internet access

## 25 References:

### A- Required book(s), assigned reading and audio-visuals:

1. Greenspan's basic and clinical endocrinology, David Gardner and Dolores shoback, 9<sup>th</sup> edition

### B- Recommended books, materials, and media:

Essential endocrinology, Brook and Marshall, 4<sup>th</sup> edition  
 Basic medical endocrinology, Goodman, 4<sup>th</sup> edition  
 Endocrine physiology, 4<sup>th</sup> edition, Patricia Molina

## 26 Additional information:

Name of Course Coordinator: **Dr. Abeer Al-Qatati**

Signature: *Abeer Al-Qatati* Date: 2/2024

Head of Curriculum Committee/Department: **Dr. Suzan Matar**

Signature: *Suzan Matar*

Head of Department: **Dr. Ahmed Abu siniyeh**

Signature: *Ahmed Abu siniyeh*

Head of Curriculum Committee/Faculty: **Dr. Mu'ayyad Al Hseinat**

Signature: *Mu'ayyad Al Hseinat*

Dean: **Prof. Mahmoud Jaghoub**

Signature: *Mahmoud Jaghoub*