

## Course Plan

### Course Title: Biochemistry of Hormones

<b>Degree:</b> MBBS	<b>Course Code:</b> 1131141122
<b>Academic Year:</b> 2025	<b>Classroom Location:</b> Soleimani Building
<b>Course credit:</b> 0.7 unit	<b>Days &amp; hours of Class Time:</b> Monday 14-16p.m.
<b>Lecturer:</b> Dr. Aarabi & Dr. Panjehpour	<b>Email:</b> mh.aarabi@pharm.mui.ac.ir
<b>Office Phone:</b> +98313792 -7052	<b>Office Address:</b> Dept of Clinical Biochem, School of Pharmacy, IUMS

#### The General Purpose of the Course:

Introduction of structure, types, metabolism and biochemical mechanisms of action of hormones and related disorders.

#### The Specific Purpose of the Course: *After studying this Course, you should be able to:*

1. Explain the basic principles of endocrine hormone action, including the determinants of hormone target cell response and the determinants of hormone concentration at target cells.
2. Understand the broad diversity and mechanisms of action of endocrine hormones.
3. Explain the complex steps involved in the production, transport, and storage of hormones
4. Explain the role of receptors in hormone signal transduction, particularly with regard to the generation of second messengers.
5. Describe disorders related to each hormone.

#### Prerequisite:

#### Course materials:

Recommended Text and Lecture Notes:

1. Harper's Illustrated Biochemistry. 31<sup>st</sup> ed. (2018)
2. Thomas M. Devlin-Textbook of Biochemistry with Clinical Correlations- 7<sup>th</sup> ed. (2011)

Recorded lectures-Class slides, lecture notes and papers provided by lecturer

Session	Topic	Times (hours)	Lecturer:	Reading Source	
				Harper	Devlin
1	Hormone Action & Signal Transduction	2	Dr. Aarabi	Chap 42	Chap 22
2	Biochemistry of Hypothalamus and Pituitary Hormone	2	Dr. Aarabi	Chap 41	Chap 22
3	Biochemistry of Adrenal Hormone ( Cortex & Medulla)	2	Dr. Aarabi	Chap 41	Chap 22
4	Biochemistry of Gonadal Hormone	2	Dr. Aarabi	Chap 41	Chap 14
5	Thyroid Hormone	1	Dr. Panjehpour	Chap 41	Chap 14
6	PTH, Ca/ P & Mg Metabolism	2	Dr. Panjehpour	Chap	Chap 14
<b>Final Exam</b>					

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