

## Module (Course Syllabus) Catalogue

2022-2023

<b>College/ Institute</b>	<b>Shaqlawa Technical College</b>	
<b>Department</b>	<b>Medical Laboratory Technology- Morning</b>	
<b>Module Name</b>	<b>Endocrinology</b>	
<b>Module Code</b>	<b>END602</b>	
<b>Degree</b>	Technical Diploma <input type="checkbox"/>	Bachelor <input checked="" type="checkbox"/>
	High Diploma <input type="checkbox"/>	Master <input type="checkbox"/> PhD <input type="checkbox"/>
<b>Semester</b>	<b>6<sup>th</sup></b>	
<b>Qualification</b>	<b>MSc. Biochemistry</b>	
<b>Scientific Title</b>	<b>Lecturer</b>	
<b>ECTS (Credits)</b>	<b>5</b>	
<b>Module type</b>	Prerequisite <input type="checkbox"/>	Core <input checked="" type="checkbox"/> Assist. <input type="checkbox"/>
<b>Weekly hours</b>	<b>4</b>	
<b>Weekly hours (Theory)</b>	<b>(Two)hr Class</b>	<b>(65)Total hrs Workload</b>
<b>Weekly hours (Practical)</b>	<b>(Two)hr Class</b>	<b>(65)Total hrs Workload</b>
<b>Number of Weeks</b>	<b>12</b>	
<b>Lecturer (Theory)</b>	<b>Hardi Rafat Baqi</b>	
<b>E-Mail &amp; Mobile NO.</b>	<a href="mailto:hardi.baqi@epu.edu.iq">hardi.baqi@epu.edu.iq</a> <b>+964(0)7507175583</b>	
<b>Lecturer (Practical)</b>	<b>Hardi Rafat Baqi</b>	
<b>E-Mail &amp; Mobile NO.</b>	<a href="mailto:hardi.baqi@epu.edu.iq">hardi.baqi@epu.edu.iq</a> <b>+964(0)7507175583</b>	
<b>Websites</b>	<a href="https://moodle.epu.edu.iq/">https://moodle.epu.edu.iq/</a>	

## Course Book

<b>Course Description</b>	<p>The Endocrinology course is aimed to provide a wide overview of human endocrinology from both a historic view point and classical definitions of the science to the contemporary modern understanding of the endocrines and hormones. Course topics will be divided into two sections (theory and practical) that cover introductions to the concepts, endocrine glands, synthesis and release of hormones, mechanisms of action and regulation of hormone secretion, as well as various aspects regarding the anatomy, biochemistry and physiology of the endocrine systems and the pathophysiology, epidemiology, and treatment of various endocrine diseases. These topics will equip the students with the basic knowledge to understand the normal function of the endocrine system and will introduce basic principles of clinical diagnosis and management of endocrine disorders.</p>
<b>Course objectives</b>	<p>The main objectives of this course are to make students understand some of the basic endocrinology and the fundamental concepts involved in the synthesis, release, activation, and regulation of organismal homeostasis and metabolism by the hormones of the endocrine system. Also, make the students familiar to the methods of endocrine system is regulation, and how to diagnose and treat endocrine diseases.</p>
<b>Student's obligation</b>	<p>Students attending Endocrinology course need to:</p> <ol style="list-style-type: none"><li>1- Attend the scheduled classes whether on campus or online.</li><li>2- Read the course documents (lectures): It is important that students read all course documents (e.g., syllabus, assignments) to become familiar with course expectations.</li></ol>

	<p>This will allow students the ability to properly plan for all course activities.</p> <p>3- Participate in all activities related to the course including: practical experimentations, presentations, reports, discussions, quizzes, and exams.</p> <p>4- Success in the assigned assessments with a minimum grade of 60%.</p>			
<b>Required Learning Materials</b>	<ul style="list-style-type: none"> <li>- Printouts of weekly lectures taught at the college campus (Theoretical and Practical).</li> <li>- Reviewing of internet</li> <li>- Proper laboratory (Chemistry, Clinical Chemistry, or Biochemistry).</li> <li>- Proper instruments</li> <li>- Chemicals and reagents</li> <li>- Laboratory glassware, equipment</li> </ul>			
<b>Forms of teaching</b>	<p>Endocrinology subjects are taught through presenting the lecture slides by slideshow in the class or electronically by recorded videos. Students attending the class can share their thoughts and ask the lecturer any questions they want. The practical section of the subject is taught in the lab where students need to do practical experimentations and report their results.</p>			
<b>Evaluation</b>	<b>Task</b>	<b>Weight (Marks)</b>	<b>Due Week</b>	<b>Relevant Learning Outcome</b>
	Paper Review			
	Assignments	Homework	5%	
Class Activity		2%		

	Report			Report their weekly laboratory work
	Seminar	10%		Enhances the preparation and presenting skills of the students
	Essay			To make students engage more with their favorite topics
	Project			
	Quiz	8%		To encourage students, study every week.
	Lab. report	10%		To make students practice obeying the laboratory rules including scientific, safety, attitude, and ethics.
	Midterm Exam	25%		To evaluate students and their achievements at the middle of the term.
	Final Exam	40%		Final evaluation and assessment.
	Total	100%		
<b>Specific learning outcome:</b>	At the end of the course, students should be familiar with the basic concepts in endocrinology including the importance and applications of endocrinology in clinical			

	<p>pathology. Besides, students should have learned the following topics/concepts:</p> <ol style="list-style-type: none"> <li>1- Definitions of endocrinology, endocrine system, hormones, hormonal secretions, release, and regulation.</li> <li>2- Using hormonal tests as a powerful tool for diagnosis.</li> <li>3- Getting familiar with the techniques and equipment used in hormonal analysis.</li> <li>4- Getting familiar with the endocrine system, and other hormonal secretion sites and their relationship to the nervous system to maintain homeostasis.</li> </ol>	
<p><b>Course References:</b></p>	<ul style="list-style-type: none"> <li>• Books: <ol style="list-style-type: none"> <li>1. William's textbook of endocrinology, fourteenth edition (Shlomo Melmed).</li> <li>2. Greenspan's Basic and Clinical Endocrinology (David G. Gardner, Dolores M. Shoback).</li> <li>3. Lehninger principles of biochemistry, fourth Edition by David L. Nelson and Michael M. Cox</li> <li>4. Biochemistry, fourth edition by Donald Voet and Judith G. Voet</li> </ol> </li> <li>• Magazines and internet review</li> </ul>	
Course topics (Theory)	Week	Learning Outcome
Principles of endocrinology	1,2	
Principles of hormone action	3,4	
Hypothalamus and pituitary gland	5,6	
The thyroid gland	7	
Adrenal medulla and paraganglia	8	
Female reproductive endocrinology and infertility	9,10	

Pancreatic hormones and diabetes mellitus	<b>11,12</b>	
	<b>Week</b>	<b>Learning Outcome</b>
Introduction to the endocrinology laboratory	<b>1</b>	
1- TRH, TSH tests 2- T4 test 3- T3 test	<b>2, 3</b>	
1- Testosterone test 2- Progesterone test 3- Estrogen test	<b>4,5</b>	
1- GH test 2- LH test 3- FSH test 4- ACTH test	<b>6,7,8</b>	
1- Prolactin test 2- Procalcitonin test	<b>9,10</b>	
1- Vitamin D test	<b>11</b>	
1- Insulin test 2- Glucagon test	<b>12</b>	

### **Questions Example Design (theoretical and practical exam):**

All of the activities provided in the workload section are considered when awarding you a grade for this course. In order to pass this course, you will need to earn a 60% or higher on the final exam. Your score on the exam will be calculated as soon as you complete it. If you do not pass the exam on your first try, you may take it again in the second trial.

- Type of the exam (composition and multiple choice)
- Exam's duration (for example one hour)
- The number of the questions: at least four questions. The marks distributed evenly throughout.

I- *Compositional*: In this type of exam the questions usually starts with Explain how, What are the reasons for...?, Why...?, How....?

Example:

- 1- Define endocrinology.
- 2- How hormones do their actions?

II- *Multiple choices*.

In this type of exam there will be a number of phrases next or below a statement, students will match the correct phrase.

**Extra notes:**

**External Evaluator**