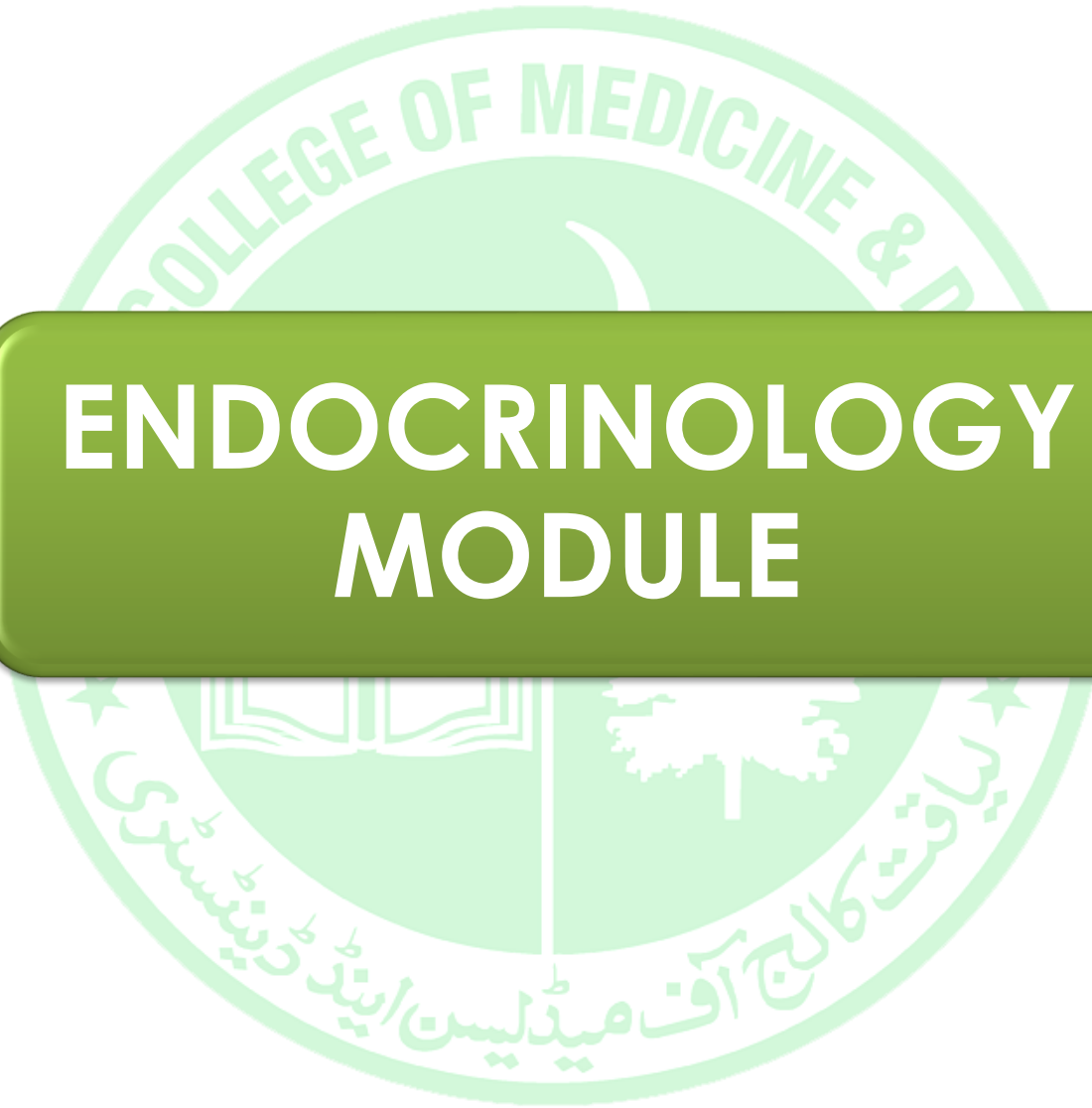




**LIAQUAT COLLEGE OF MEDICINE AND DENTISTRY**  
**DEPARTMENT OF HEALTH PROFESSIONS EDUCATION**  
**COLLEGE OF DENTISTRY**



**ENDOCRINOLOGY**  
**MODULE**





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<b>CODES</b>			
<b>Subject Name</b>		<b>Abbreviations</b>	<b>Color Codes</b>
<b>ANATOMY</b>	<b>Anatomy Lectures</b>	<b>A</b>	
	<b>General Anatomy</b>	<b>A(Gn)</b>	<b>Navy Blue</b>
	<b>Gross anatomy</b>	<b>A(Gr)</b>	<b>Black</b>
	<b>Histology</b>	<b>A(H)</b>	<b>Light Pink</b>
	<b>Neuro - Anatomy</b>	<b>A(NA)</b>	<b>Red</b>
	<b>Embryology</b>	<b>A(E)</b>	<b>Brown</b>
	<b>Histology Practical</b>	<b>A(P)</b>	<b>Light Pink</b>
<b>PHYSIOLOGY</b>	<b>Lecture</b>	<b>P</b>	<b>Green</b>
	<b>Practical</b>	<b>P(P)</b>	
<b>BIOCHEMISTRY</b>	<b>Lectures</b>	<b>B</b>	<b>Light Blue</b>
	<b>Practical</b>	<b>B(P)</b>	
<b>ORAL BIOLOGY</b>	<b>Oral Biology</b>	<b>O</b>	<b>Purple</b>
	<b>Tooth Morphology</b>	<b>T</b>	<b>Dark Pink</b>



## CONTENT ENDOCRINOLOGY MODULE

Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	Lectures	03	02 Weeks	Lecture / Tutorial / SGD
	Practical	02		Practical
PHYSIOLOGY	Lecture	13		Lecture/ Tutorial
BIOCHEMISTRY	Lectures	01		Lecture/ Tutorial
Total		19		





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Topic	Lecture	Endocrinology - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
<b>Pituitary gland</b>	EM-A1(Gr1)	<ul style="list-style-type: none"> <li>Describe the location &amp; division of gland.</li> <li>Differentiate the cells of pituitary according to staining.</li> <li>List the 2 sources from which the adenohypophysis and neurohypophysis develops.</li> </ul>	Lecture	KSA	MCQ / OSPE
	EM-A(P1)	Identify the histological features of pituitary gland under the microscope	Practical	KSA	MCQ / OSPE
<b>Thyroid And Parathyroid Glands</b>	EM-A2-3(Gr2-3)	<ul style="list-style-type: none"> <li>Describe the location, extent, relation and vascular supply of both glands and clinical related to it.</li> <li>Describe origin &amp; derivation of both glands.</li> <li>Discuss the anomalies of thyroid gland.</li> </ul>	Lecture	KSA	MCQ / OSPE
	EM-A(P2)	<ul style="list-style-type: none"> <li>Identify the follicular arrangement and follicular cells in thyroid gland.</li> <li>Identify the anastomosing cord and chief and oxyphil cells in Parathyroid gland.</li> </ul>	Practical	KSA	MCQ / OSPE
<b>Classification of hormones</b>	P1	Discuss what are endocrine hormones	Interactive Lecture/	Knowledge	MCQ
		Compare endocrine and exocrine glands		Knowledge & Skill	MCQ
		List the major endocrine glands and locate them in the body		Knowledge	MCQ
		Classify hormones		Knowledge	MCQ
		How is hormone secreted, transported and cleared from the blood		Knowledge	MCQ
<b>Mechanism of action of hormones</b>	P2	Discuss hormone receptors and their activation	Interactive Lecture /role play by students /tutorial	Knowledge & Attitude	MCQ
		Discuss intercellular signaling after receptor activation		Knowledge & Attitude	MCQ
		Discuss mechanism of actions of different hormones		Knowledge & Attitude	MCQ
<b>Hypothalamo-hypophyseal system</b>	P3	Describe the structural and functional relationships of the hypothalamus-pituitary unit	Interactive Lecture	Knowledge & Attitude	MCQ
		Describe the control, site of action and functions of the adenohypophysis hormones		Knowledge	MCQ / quiz
		Describe the relationship between the neurohypophysis and the hypothalamus		Knowledge & Attitude	MCQ / OSPE
		Describe the effects of hypo and		Knowledge	MCQ / OSPE



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		hyper secretions of these hormones			
<b>Anterior pituitary hormones</b>	P4	List the hormones secreted by anterior pituitary	Interactive Lecture/CBL	Knowledge & Attitude	MCQ / OSPE
		Discuss the synthesis and secretions & effects of these hormones		Knowledge	MCQ
		Discuss the effects of growth hormones & applied aspects		Knowledge	MCQ
<b>Posterior pituitary hormones</b>	P5	List the hormones secreted by posterior pituitary	Lecture	Knowledge & Attitude	MCQ / OSPE
		Discuss the synthesis and secretions of these hormones		Knowledge & Attitude	MCQ / OSPE
		Discuss the effects of these hormones & their disorders		Knowledge	MCQ
<b>Thyroid hormones</b>	P6+7	Describe the formation, secretion, function and regulation of thyroid hormones	Interactive Lecture/tutorial	Knowledge & Attitude	MCQ/ google classroom assignment
		Discuss disorders of thyroid hormones		Knowledge & Attitude	MCQ / OSPE
<b>Pancreatic hormones</b>	P8+ 9	Describe the mode of action of insulin release and its mechanism in target cells	Interactive Lecture/S GD	Knowledge & Attitude	MCQ
		Explain physiological functions of insulin		Knowledge, Skill & Attitude	MCQ / OSPE / google classroom assignment
		Explain functions of glucagon, somatostatin and pancreatic polypeptide		Knowledge & Skill	MCQ / OSPE
<b>Calcium homeostasis</b>	P 10+ 11	Name the hormones that regulate the calcium and phosphate homeostasis	Interactive Lecture CBL	Knowledge, Skill & Attitude	MCQ / OSPE
		Explain functions of parathyroid hormone		Knowledge	MCQ
		Explain functions of vitamin D and calcitonin		Knowledge & Attitude	MCQ/ quiz assign
		Discuss hypocalcemia and hypercalcemia		Knowledge, Skill & Attitude	MCQ
<b>Adrenal hormones 1</b>	P 12	Describe the site of formation, function and control of secretion of mineralocorticoids	Interactive Lecture Scenario base learning	Knowledge	MCQ
		Describe the site of formation, function and control of secretion of glucocorticoids		Knowledge	MCQ/ quiz assign
<b>Adrenal hormones 2</b>	P 13	Discuss Cushing syndrome, Cushing disease and Addison's disease	Interactive Lecture	Knowledge & Attitude	MCQ / OSPE
<b>Introduction to Hormones</b>	B1	Classify hormones	Lecture	Knowledge	MCQ/OSPE
		Discuss the mechanism of action of hormones		Knowledge	MCQ/OSPE



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ISLAMIC STUDIES				
Topic	Objectives	Mode of Teaching	KSA Competencies	Assessment Tools
		Lecture/ Tutorials	Knowledge/ Skill/ Attitude	
<b>INTRODUCTION TO THE HOLY QURAN</b>				
<b>Introduction To The Holy Quran</b>	<ul style="list-style-type: none"> <li>Discuss the importance of the Quran in our daily lives</li> </ul>	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> <li>Describe briefly the history of revelation of the Quran (Prediction of Warqa bin Naufal, 1st Revelation etc).</li> </ul>	Lecture		
	<ul style="list-style-type: none"> <li>Explain how the Quran is the greatest miracle of Rasool-ullah (S.A.W).</li> </ul>			
	<ul style="list-style-type: none"> <li>Explain how the Quran was compiled in different ways in the era of:                             <ul style="list-style-type: none"> <li>Rasool-ullah (S.A.W)</li> <li>Abu Bakar ( R.A.)</li> <li>Usman Ghani (R.A.)</li> </ul> </li> </ul>			
	<ul style="list-style-type: none"> <li>Discuss the Quranic Sciences (Uloom ul Quran):                             <ul style="list-style-type: none"> <li>Definition and differences between Makkan and Madinah verses or chapters.</li> <li>Explain the Shan e Nuzool / reasons for the revelation (Two examples)</li> </ul> </li> </ul>			
	<ul style="list-style-type: none"> <li>Differentiate between the Abrogator &amp; Abrogated verses (Nasikh &amp; Mansookh) (Two examples)</li> </ul>			



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INTRODUCTION TO ETHICS				
Topic	Objectives	Mode of Teaching	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
		Lecture/ Tutorials		
<b>Ethics of Care vs. Ethics of Justice</b>	<ul style="list-style-type: none"><li>Discuss the differentiating characteristics between ethics of care and of justice</li></ul>	Lecture	Knowledge	MCQs

