



Course Specifications

Course Title:	Endocrinology
Course Code:	451 ZOO
Program:	Biology
Department:	Biology
College:	Science
Institution:	Jazan University

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A. Course Identification

1. Credit hours:			
2. Course type			
a.	University <input type="checkbox"/>	College <input type="checkbox"/>	Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b.	Required <input checked="" type="checkbox"/>	Elective <input type="checkbox"/>	
3. Level/year at which this course is offered: Seven / four			
4. Pre-requisites for this course (if any): Animal Physiology 351ZOO			
5. Co-requisites for this course (if any): None			

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	13	86.7%
2	Blended	2	13.3
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	15
2	Laboratory/Studio	30
3	Tutorial	-
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description							
Course Title	Course No.	Credit Units			Year	Level	Pre-Requirement
		Theoretical	Practical	Total			
ENDOCRINOLOGY	451ZOO	1	1	2	4	7	351O
-Brief Course Description: This is a comprehensive study of the endocrine system which will allow the student to integrate and better understand the functions of the other systems of the body. Also, the pathological conditions associated with endocrine imbalance are investigated -Course Objectives This course is designed to provide students with the following concepts: <ol style="list-style-type: none"> 1- To develop an understanding of the role of the endocrine system in maintaining homeostasis and health. 2- To identify the different types of glands and hormones. 3- To study the mechanism of action of different hormones. 							



- 4- To recognize the structure and function of endocrine glands
- 5- To identify diseases related to abnormalities in hormone secretion

- Course Contents:

1. Chemistry of hormones – Types of hormones- Characterization of hormones- Synthesis of hormones -Mode of action of hormones- Regulation of hormone secretion.
2. Endocrine Glands (Hypothalamus and hypothalamus, Pineal gland, Thyroid and Parathyroid glands, Thymus gland, Pancreas, Adrenal, Genital glands and sex hormones).
3. Other endocrine organs (heart – kidney – fat tissues –stomach –duodenum)

- Assessment:

- Theoretical (quiz, essay, midterm exam): 20 %
- Practical (class work, midterm exam, final exam): 30 %
- Final exam: 50%

-Teaching Methods:

Lectures, photographs, slides, multimedia, web-based videos

- Text book:

- علم الغدد الصماء. تأليف الدكتور مدحت حسين خليل محمد. جامعة الأزهر (1997)، مكتبة المدينة- العين – الإمارات العربية المتحدة

-References:

Endocrine Physiology by Patricia E. Molina. (Third Edition) A LANG Medical Book. ISBN 978-0-07-161301-9 Publishers McGraw Hill Companies, Inc. (2010).

Guyton and Hall Textbook of Medical [Physiology](#) 12th edition (2010) by John E. Hall PhD, Pub. Saunders, pp. 840-949

2. Course Main Objective

This course aims to study the endocrine glands structurally and functionally and their role in regulation of metabolism, growth and reproduction in different animals. Some abnormalities of hormonal secretion will be discussed.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Define all principals, concepts, theories and aspects concerning with endocrinology	K1.1
1.2	Compare between different mechanisms, functions, practices and aspects related to endocrinology	K2.1
1.3	Explain all processes, mechanisms, definitions, theories, mode of actions of endocrinology.	K2.2
1.4	Interpret by using your knowledge and understanding some of phenomena concerning with endocrinology.	K3.2
2	Skills :	
2.1	Apply the theoretical knowledge and understanding in laboratory experiments and techniques	S1.2
2.2	Design a biological experiment and procedures in laboratory or in the field or even theoretically.	S3.1
2.3	Write a report about any practical or theoretical tasks related to endocrinology.	S3.3



CLOs		Aligned PLOs
3	Values:	
3.1	Apply practices of life-long learning in endocrinology for their professional career	V1.1

C. Course Content

No	List of Topics	Contact Hours
1	General introduction - Chemistry of hormones – Types of hormones- Characterization of hormones- Synthesis of hormones -Mode of action of hormones- Regulation of hormone secretion	4
2	Endocrine glands Hypothalamus – Pituitary gland – Pineal gland	2
3	Thyroid gland – Parathyroid gland – Thymus gland	2
4	Adrenal gland – Pancreas	3
5	Genital glands and sex hormones	1
6	(Other endocrine organs (heart – kidney – fat tissues –stomach –duodenum	2
7	Revision and final examination	1
Total		15

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Define all principals, concepts, theories and aspects concerning with endocrinology	Lectures – Group discussion	Final theory exam – Midterm theory exam
1.2	Compare between different mechanisms, functions, practices and aspects related to endocrinology	Lectures	Final theory exam – Midterm theory exam
1.3	Explain all processes, mechanisms, definitions, theories, mode of actions of endocrinology.	Lectures	Final theory exam
1.4	Interpret by using your knowledge and understanding some of phenomena concerning with endocrinology.	Lectures	Final theory exam
2.0	Skills		
2.1	Apply the theoretical knowledge and understanding in laboratory experiments and techniques	Lectures – Lab work	Practical final exam
2.2	Design a biological experiment and procedures in laboratory or in the field or even theoretically.	Lectures	Final theory exam-
2.3	Write a report about any practical or theoretical tasks related to endocrinology.	Lectures – Lab work	Practical and theory quizzes



Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
3.0	Values		
3.1	Apply practices of life-long learning in endocrinology for their professional career	Lectures – Lab work-	Homework, presentation. (practical +theory)

2. Assessment Tasks for Students

#	*Assessment task	Week Due	Percentage of Total Assessment Score
1	Theoretical Quiz	5	5
2	Practical Quiz	6	5
3	Theory Midterm	7	10
4	Theory Homework	9	5
5	Practical Homework	10	5
6	Practical Final	13	20
7	Final exam	15	50

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :
10 Office hours/faculty/week.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	علم الغدد الصماء. تأليف الدكتور مدحت حسين خليل محمد. جامعة الأزهر (1997)، مكتبة المدينة- العين – الإمارات العربية المتحدة Endocrinology (1997) by Dr. Medhat H Khalil, Al-madina Library, Al Ain- UAE.
Essential References Materials	Endocrine Physiology by Patricia E. Molina. (Third Edition) A LANG Medical Book. ISBN 978-0-07-161301-9 Publishers McGraw Hill Companies, Inc. (2010). Guyton and Hall Textbook of Medical Physiology 12th edition (2010) by John E. Hall PhD, Pub. Saunders, pp. 840-949
Electronic Materials	http://www.vivo.colostate.edu/hbooks/pathphys/endocrine/index.html https://www.webteb.com/endocrine-system
Other Learning Materials	-

2. Facilities Required

Item	Resources
Accommodation Classrooms, laboratories, demonstration) (rooms/labs, etc	1 Lecture room(s) for groups of 25 students. Laboratory for group of 15 students 1



Item	Resources
Technology Resources AV, data show, Smart Board, software,) (etc	AV, data show, Smart Board
Other Resources Specify, e.g. if specific laboratory) equipment is required, list requirements or (attach a list	NA

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching	Students, Faculty	Direct (Questionnaire)
Effectiveness of assessment	Peer Reviewer	Direct (Cross Check marking)
Extent of achievement of course learning outcomes	Program Leader	Indirect (QA Committee)
Quality of learning resources	QA. Committee	Indirect (Benchmarking)

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Consultant Committee/ Board of Biology Department
Reference No.	
Date	

