Course specification

1-Basic information

Course Code:	BIC 1210
Course title :	Basic Biochemistry
Academic year:	1st academic Year (2nd term)
Program title:	B. Sc. Veterinary Medical sciences
Contact hours/ week	4 hours/week, (2 Lect./week, 2 Practical/week)
Approval Date	2017-2018

2-Professional information

Overall aims of course:

This course aims to:

1-Identifying, acquire and distinguish the chemical composition of the body.

2- Recognizing the role vitamins, enzymes and hormones in biochemical reactions inside the animal cell and the diseases which may develop due to disturbance in these biochemical reactions.

3- Intended learning outcomes of course (ILOs)

a-Knowledge and understanding:

By the end of this course the student should be able to:

a1- Recognize the structure of biological macromolecules inter in structures of the body.

a2-Outline the function and biochemical use of each substance inter in the structure of animal body.

a3- Describe the role of vitamins in the vital processes of the living cell.

a4- describe the mechanisms of action of enzymes and how they regulate the biochemical reactions.

a5- Illustrate the positive and negative feedback mechanisms of certain hormones to achieve the body balance.

b- Intellectual skills

By the end of this course the student should be able to:

b1- Analyze the biochemical composition of different body organ and tissue which contributes its normal function.

b2- Interpret the biochemical data and use it for useful evaluation of functions of different body tissues.

b3- Discriminate the general biochemical mechanisms that culminate the functional disturbances of animal body.

c-Professional and practical skills

By the end of this course the student should be able to:

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c1- assess normal body functions.
C2- Identify the differences in structure and function of each chemical substance of the living cell.
C3- perform different biochemical laboratory experiments.
C4- Perform various biochemical tests for identifying unknown biochemical substances.

d-General and transferable skills
By the end of studying the course, the student should be able to:
d1- Work in a group and manage time.
d2- Exhibits the sense of beauty and neatness.
d3- Utilize new technological tools.
d4- Utilize efficiently library facilities and IT tools.

4-Topics and contents

Course	Topic	No. of hours	Lectures (2 hs/week)	Practical (2 hs/week)
1st year – Second term – Basic Biochemistry – (Lec. 2h/ week, Pract. 2h/ week)				
	Chemistry of Carbohydrates	14	3	4
	Chemistry of proteins	8	3	2
	Chemistry of lipids	8	2	1
	Vitamins	8	2	2
	Enzymes	8	2	2
	Hormones	8	1	2
	Total	52	13	13

5-Teaching and learning methods

5.1- Lectures (brain storm, discussion) using board, data shows.
5.2- Self learning by preparing essays and presentations (computer researches and faculty library)
5.3- Practical (unknown samples).

6-Teaching and learning methods for the students with disabilities

Office hours and special meeting.

7-Student assessment

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7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	**I.S**	**P&P.S**	**G.S**
Final Exam	a1, a2,a3,a4,a5	B1, b3		
Practical Exam		B2,b3	c1,c2,c3,c4	d1, d2,d3
Oral Exam	a1, a2,a3,a4,a5	b1,b2,b3		d2,d4

7.2. Assessment schedules/semester:

Method	Week(s)
Practical exams	14th weak
Final exams	14th weak
Oral Exam	The same day of the final exam.

7.3. Weight of assessments:

Assessment	Weight of assessment
Practical exams	20%
Final exams	50%
Oral exams	20%
Student activity	10%
Total	100%

8- List of references

8.1. Notes and books

Departmental notes: none

8.2. Recommended texts

- Haper's of Biochemistry.
- Biochemistry and clinical correlation.

8.3. Journals, Websites ……..etc

Journals: Biomedicine and pharmacotherapy, clinical chemistry and molecular biology

Websites: www.pubmed.com.

Course Coordinators **Head of Department**

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Topic	Week	Intended learning outcomes of course (ILOs)			
		K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Chemistry of Carbohydrates	1,2,3	1,2	1,2,3	1,2,3,4	1,2,3,4
Chemistry of proteins	4,5,6	1,2	1,2,3	1,2,3,4	1,2,3,4
Chemistry of lipids	6,7	1,2	1,2,3	1,2,3,4	1,2,3,4
Vitamins	8,9	3	1,2,3	1,2,3,4	1,2,3,4
Enzymes	10,11	4	1,2,3	1,2,3,4	1,2,3,4
Hormones	12,13	5	1,2,3	1,2,3,4	1,2,3,4