



South Valley University

Faculty of Vet.Medicine

Course Specifications

Programme(s) on which the course is given: Bachelor degree of Vet. Science.

Major or Minor element of programmes: major

Department offering the programme: Biochemistry department

Department offering the course: Biochemistry department

Academic year / Level: 1st year (2nd semester)

Date of specification approval:

A- Basic Information

Title: Metabolism and feeding chemistry

Code: 124

Credit Hours:

Lecture: 36 hrs

Practical: 36 hrs

Total: 72hrs

B- Professional Information

1 – Overall Aims of Course

- This course is formed to explore the basic biochemistry information including the metabolism of carbohydrate, lipid, protein, water and minerals in addition to the chemistry of body fluids and molecular biology metabolism which are necessary for the description of biochemical metabolic pathways in mammals.
- To provide students with principles and topics of biochemistry metabolism and their experimental basis which are necessary for the study of clinical vet. Sciences.
- To enable the development and application of proper professional attitudes, communication and problem shooting skills.

2 – Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

Graduates of veterinary medical program must acquire the following knowledge and understanding:

- Demonstration of advanced knowledge and understanding biochemical branches.
- Describe the normal biochemical metabolic processes in domestic mammals.
- Interpret the bases of many congenital anomalies associated with inborn errors that affect growth and development.
- Provide strong biochemical information on which students can build their preclinical studies, and can use it later when they are qualified as veterinary physicians.

b- Intellectual Skills

Graduates must have the ability to:

- Establish a general scheme to reach the correct diagnosis of metabolic disturbances
- Understand the causes , mechanisms and effects of diseases dependent

c- Professional and Practical Skills

Graduates must be attain the capacity to:

- estimate protein and glucose in serum.
- measure lactose in milk
- measure diagnostic enzymes in the serum.
- measure creatinine, urea and uric acid in the urine serum.

d- General and Transferable Skills

Graduates must have the ability to:

- write full scientific reports in the field of biochemistry.
- Report the biochemical test results in printable sheets.
- write reports and assay on the different scientific items.
- work in groups and team in addition to use computer and internet to extract information and knowledge.

3- Contents

	Topic	Total No. of hours	No. of lectures	Practical course	
				Topics	No. of hours
1	Biological oxidation	3	1	Estimation of glucose in sol.	3
2	Carbohydrate metabolism	6	2	Chemical examination of milk	6
3	lipid metabolism	6	2	Estimation of lactose in milk	3

4	Protein metabolism	6	2	Estimation of glucose in urine	6
5	Water metabolism	3	1	Urine analysis (physical properties)	3
6	Mineral metabolism	3	1	Urine analysis (normal constituents)	6
7	Metabolism of nucleic acid	6	2	Urine analysis (abnormal constituents)	6
8	Body fluids	3	1	Urine report	3
Total		36	12		36

4– Teaching and Learning Methods

- lectures by staff and external professors.
 - Practical small groups
- Practical training (demonstration self –practice and discussion).

5- Student Assessment Methods

- 5.1 Mid-term examinations to assess the student understanding of course studied.
- 5.2 practical examination to assess the student understanding of practical course.
- 5.3 Oral examination to assess the ability of students how to express their knowledge in biochemistry course.
- 5.4 Final-term examination to assess professional and general skills

Assessment Schedule

Assessment 1 Mid-term exam	Week 11
Assessment 2 Practical exam	Week 13
Assessment 3 Final year written exam	Week 16
Assessment 4 Oral exam	Week 16

Weighting of Assessments

Mid-Term Examination	20%
Final-term Examination	50%

Oral Examination.	15%
Practical Examination	15%
<u>Total</u>	<u>100%</u>

Any formative only assessments 3

6- List of References

6.1- Course Notes

Department course notes (lectures and practical)

6.2- Essential Books (Text Books)

Harpers Biochemistry (Murray R. K. et al., 2003)

6.3- Recommended Books

None

6.4- Periodicals, Web Sites, ... etc

<http://www.sciencedirect.com>

<http://www.nln.nib.gov/>

7- Facilities Required for Teaching and Learning

- Providing class rooms with multimedia system (with data show and computer)
- Arranging for some visits for modern instruments used in biochemistry like Electrophoresis, RIA and Chromatography techniques.
- Availability for field studies and some facilities it for collecting specimens.

Course Coordinator:

Course Professor: prof., Dr. Taheya Hashim Sleem

Vet. Mohammed Salah Abdallah Mohammed

Vet. Obeid Mahmoud Mohammed

Head of Department:

Date: