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 (1st semester)

Date of specification approval:

A- Basic Information

Title: Biochemistry
Code: 114
Credit Hours:
Lecture: 36 hrs Practical: 36 hrs Total: 72hrs

B- Professional Information

1 – Overall Aims of Course

- To explore the basic biochemistry information of carbohydrate chemistry, lipid chemistry, protein chemistry, hormones and vitamins which are necessary for the study of principles of vet. sciences.
- To provide students with principles and topics of biochemistry and their experimental basis
- 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:

- Demonstrate the advanced knowledge and understanding biochemical branches.
- Describe the normal biochemical metabolic processes in domestic mammals.

- 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:

- Understand the chemistry of carbohydrates, protein, lipids, nucleic acid, vitamin and hormones.

c- Professional and Practical Skills

Graduates must be attaining the capacity to:

- Identify of carbohydrates.
- Identify of lipids.
- Identify of proteins
- Identify of urea and uric acid
- Perform a Scheme of identification of simple unknown.

d- General and Transferable Skills

Graduates must have the ability to:

- Write a full scientific report in the field of biochemistry.
- Report of 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	Carbohydrates chemistry	6	2	Carbohydrates	3
2	Lipids chemistry	6	2	Identification of carbohydrates	6
3	Protein chemistry	6	2	Lipids	3
4	Nucleoprotein and nucleic acids	3	1	Identification of lipids	6
5	Enzymes and co-enzymes	3	1	Protein	3
6	Vitamins	3	1	Identification of protein	6
7	Hormones	3	1	Urea and its identification	3
8	Animal pigments	3	1	Uric acid and its identification	3
9	Putrefaction and detoxication	3	1	General scheme	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 examinations 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%
Total	100%

Any formative only assessments

6- List of References

6.1- Course Notes

Department course notes (lectures and practical)

6.2- Essential Books (Text Books)
Harpers Biochemistry (Murray 3R. K. et al., 2003)

6.3- Recommended Books

None

6.4- Periodicals, Web Sites, etc

http://www.biology Arizona.edu./default.html.

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 spectrophotometers and ELISA- readers.
- Availability for field studies and some facilities it for collecting specimens.

Course Coordinator: Vet. Mohammed Salah Abdallah Mohammed

Vet. Obeid Mahmoud Mohammed

Course Professor: prof., Dr. Taheya Hashim Sleem

Head of Department:

Date: