

Course Description Form

1. Course Name:	
Biochemistry II	
2. Course Code:	
VEP1104	
3. Semester / Year:	
second year / first semesters	
4. Description Preparation Date:	
2024/2/14	
5. Available Attendance Forms:	
second year students	
6. Number of Credit Hours (Total) / Number of Units (Total)	
75 hours/ 3 UNITS	
7. Course administrator's name (mention all, if more than one name)	
Name: Ahmed A. Azeez Email: aliahmed.aam@uokirkuk.edu.iq	
8. Course Objectives	
Course Objectives	<ol style="list-style-type: none">1. Providing students with the basic concepts and experience necessary to prepare them as veterinarians and teaching veterinary students the basics of chemistry.2. The study of general chemistry, which is one of the basics of medical sciences, as it aims to study the chemical reactions that occur between substances on the one hand and their relationship to the body on the other.3. That the student acquire intellectual skills related to modern methods and trends, and that the student acquires manual skills that qualify as the outcome of laboratory work.4. Spreading the spirit of cooperation among students through laboratory work.

9. Teaching and Learning Strategies

Strategy

A- Cognitive goals .

A1- Teaching the student the concept of biochemistry and its general principles

A2- Knowledge, understanding and comprehension of the scientific subject curriculum

A3- To classify the theoretical and practical needs for the development of learning and teaching in the appropriate manner with the scientific material

A4- Identifying the composition of the chemical substances in the animal's body.

A5 - Identify the methods of metabolism of substances (carbohydrates, proteins and fats)

A6- Studying the structure and classification of hormones and their relationship to the life cycle of an animal and its relationship to the body's biological reactions

A7- Studying the structure of enzymes, their mechanism of action and their effect on chemical reactions.

B. The skills goals special to the course.

B1 - Teaching the student how to draw blood.

B2 - Teaching the student the methods of analyzing basic chemicals that affect animal life.

B3 - Teaching the student the techniques of optical absorbance measurement devices for the purpose of measuring chemicals.

C-Teaching and Learning Methods

C1- Presentation methods: giving lectures to students while they are sitting in front of the teacher, and they listen to him, and he must have the ability to memorize and absorb information.

C2- Dialogue methods: the teacher uses the method of dialogue with the students in the manner of asking questions to the students and discussing the information with the students.

C3- The discovery method: the teacher observes the activities of the students conducting the experiments individually or collectively.

C4- Active methods: the students perform individual or group activities and the teacher takes the students hand towards learning in practical life inside and outside the educational institution and to

come into contact with the vocabulary of practical life, which gives meaning to real learning.

C5- Giving lectures using modern methods for presenting power point topics and scientific films.

D - General, qualification and transferable skills (other skills related to employability and personal development).

D1- Team work: working in harmony with the group or team.

D2 - Initiative Motivation to work: the ability to take the initiative, determine the hypothesis, and develop ideas and proposed solutions.

D3- Planning & organization: An ability to set plans and programs that are feasible for implementation.

D 4- Flexibility: adapting to situations.

D 5- Time management: The ability to work on specific dates.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	4	Atoms and electronic structure & periodic table.	Inorganic chemistry	Theoretical (2 hours) + practical (2 hours)	daily exam
2	4	Chemical bonding.	Inorganic chemistry	Theoretical (2 hours) + practical (2 hours)	Homework
3	4	Alkanes and cyclic compounds	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	daily exam
4	4	Alkenes	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	Homework
5	4	Alkynes.	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	daily exam
6	4	Aromatic compounds	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	Homework
7	4	Organic halides	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	
8	4	Mid-term exam.		Theoretical (2 hours) + practical (2 hours)	Theoretical (25) and practical (10) exams + reports (5)
9	4	Alcohols	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	daily exam
10	4	Ethers and phenols	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	Homework
11	4	Aldehydes and ketones	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	daily exam

12	4	Carboxylic acids	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	Homework
13	4	Carboxylic acid derivatives Amines	Organic chemistry	Theoretical (2 hours) + practical (2 hours)	daily exam
14	4	Acid base theory/ionization constant.	Analytical chemistry	Theoretical (2 hours) + practical (2 hours)	Homework
15	4	Auto ionization of water/ measurement of pH.	Analytical chemistry	Theoretical (2 hours) + practical (2 hours)	
		Final-term exam.		Theoretical (2 hours) + practical (2 hours)	Theoretical and practical exams (45+15)

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1-Schaum's outlines. General, Organic, and Biochemistry. 2 nd ed. 2-Harper's illustrated Biochemistry. 28 th ed. 2009. Robert K. Murray, David A. Bender. 3-Biochemistry, Molecular biology & Genetics. 5 th ed. 2010. Todd A. Swarson, Sandra I. Kim, Marc J. Glucksman.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	