Course Description Form

1. Course Name:	
General Chemistry II	
2. Course Code:	
VEP1109	
3. Semester / Year:	
First year / second semesters	
4. Description Preparation Date:	
2024/2/14	
5. Available Attendance Forms:	
First year students	
6. Number of Credit Hours (Total) / Number of Units (Total)	
60 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	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 cooperati among students through laboratory wor

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 a 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 absorbar 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 performs 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	Chemical quantitative analysis/ standard solution	Analytical chemistry	Theoretical (2 hours) + practical (2 hours)	daily exam
2	4	Titration of acid and base indicators.	Analytical chemistry	Theoretical (2 hours) + practical (2 hours)	Homework
3	4	Formula masses / the mole/ molecular formula.	Analytical chemistry	Theoretical (2 hours) + practical (2 hours)	daily exam
4	4	Buffers /Biochemical buffers.	Analytical chemistry	Theoretical (2 hours) + practical (2 hours)	Homework
5	4	Water(Physical &chemical properties)	Introduction to biochemistry	Theoretical (2 hours) + practical (2 hours)	daily exam
6	4	Carbohydrates	Introduction to biochemistry	Theoretical (2 hours) + practical (2 hours)	Homework
7	4	Carbohydrates	Introduction to biochemistry	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	Carbohydrates	Introduction to biochemistry	Theoretical (2 hours) + practical (2 hours)	daily test
10	4	Amino acids	Introduction to biochemistry	Theoretical (2 hours) + practical (2 hours)	Homework
11	4	Peptides	Introduction to biochemistry	Theoretical (2 hours) + practical (2 hours)	daily exam

12	4	Proteins	Introduction to biochemistry	Theoretical (2 hours) + practical (2 hours)	Homework
13	4	Lipids	Introduction to biochemistry	Theoretical (2 hours) + practical (2 hours)	daily exam
14	4	Lipids	Introduction to biochemistry	Theoretical (2 hours) + practical (2 hours)	Homework
15	4	Nucleic acids	Introduction to biochemistry	Theoretical (2 hours) + practical (2 hours)	
		Final-term exam.		Theoretical (3 hours) + practical (2 hours)	Theoretical and practical exams (40+20)

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