

Course Description Form

1. Course Name: Biochemistry I

2. Course Code:

3. Semester: Frist / Year: Third

4. Description Preparation Date: 25/ 2/2024

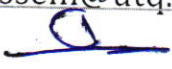
5. Available Attendance Forms: weekly (actual)

6. Number of Credit Hours (45) theory (28) practical / Number of Units (4)

7. Course administrator's name (mention all, if more than one name)

Name: Khansaa Auda Hussein

Email: khansaa_aua_hussein@utq.edu.iq

Name: Alaa Khalil Ali 

Email: alaa21@utq.edu.iq

8. Course Objectives

Course Objectives

1. Course objectives
2. Understanding the basis of Biochemistry
3. Detection of many biomolecules using various biochemical methods
4. Knowledge of the fields of laboratory analysis
5. It provides students with the knowledge, skills and efforts required to work in the diagnosis of diseases through laboratory tests, hospital, pharmacy college or private care.
6. Understand other topics that cover topics related to pharmacy
7. It provides students with the knowledge, skills and efforts required to work in the diagnosis of diseases through laboratory tests.
8. Understand other topics, most notably topics related to pharmacy

9. Teaching and Learning Strategies

Strategy	It is interested in studying bioenergetics, the role of ATP, the importance of carbohydrates and their metabolism, the importance of fats and their metabolism Amino acids, proteins and the process of their food metabolism, plasma proteins. And the work of the endocrine system and hormones is varied. Enzymes and enzyme kinetics. Nucleotide metabolism and DNA structure . The process of copying and translation.
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction to the macromolecules biochemistry	Definitions and terms; proteins, enzymes, DNA; Clinical value	Theoretical lectures Blackboard Optical	Mid-term exams Final exams Oral exams And editorial
2	3	Amino acids	Structures of A.A (table of standard A.A abbreviation and side chain); Classification, properties, isomerism.	projector PowerPoint presentation Educational laboratories Electronic lectures	
3	3	Amino acids	Chemical reactions, Zwitter ions, titration curve calculating isoelectric point values. Examples and questions. Non standards A.A: Structures, existence and clinical value		
4	3	Peptides	Peptide bond, resonance forms, isomers, physical properties and chemical reactions. Essential poly peptides in human body, structures, roles and clinical values.		
5	3	Proteins	Structure and conformations of		

6	3	Carbohydrates	<p>proteins, Primary structure, Secondary structure (4 helix, 5 sheet), tertiary structure, quaternary structure.</p> <p>Chemistry and classification, biomedical importance, classification of CHO, Stereochemistry of monosaccharides, metabolism of CHO; Physiologically important monosaccharides, glycosides, disaccharides, polysaccharide</p>		
7	3	Lipids	<p>Introduction, classification of lipids, fatty acids (F.A), nomenclature of F.A, saturated F.A, unsaturated F.A, physical and physiological properties of F.A, metabolism of lipids. Phospholipids, lipid peroxidation and antioxidants, separation and identification of lipids, amphipathic lipids</p>		
8	3	Enzymes	<p>Structures and mechanism, nomenclature, classification, mechanisms of catalysis, thermodynamics, specificity, lock and key model, induced fit model, transition state</p>		

			<p>stabilization, dynamics and function, allosteric modulation.</p> <p>Biological function, cofactors, coenzymes, involvement in disease.</p>		
9	3	Enzyme inhibition	<p>Enzyme inhibition: Reversible inhibitors, competitive and non competitive inhibition, mixed-type inhibition, Irreversible inhibition. Inhibition kinetics and binding affinities (k_i), questions and solutions.</p>		
10	3	Nucleic Acid	<p>Chemical structure, nucleic acid components, nucleic acid bases, nucleotides and deoxynucleotides (Properties, base pairing, sense and antisense, super-coiling, alternative structures, quadruple structures</p>		
11	2	Biological functions of DNA	<p>Genes and genomes, transcription and translation, replication.</p>		
12	3	<p>Biochemistry of extracellular and intracellular communication</p> <p>Plasma</p>	<p>membrane structure and function; Biomedical importance, membrane proteins associated with lipid bilayer, membranes protein composition, dynamic structures of</p>		

13	1	Artificial membranes model	<p>membranes, a symmetric structures of membranes.</p> <p>the fluid mosaic model, membrane selectivity, physiological functions of plasma membranes.</p>		
14	3	Biochemistry of the endocrine system	<p>Classification of hormones, biomedical importance, the target cell concept and hormone receptors, biochemistry of hormone signal transduction</p>		

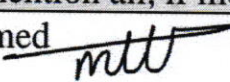
11. Course Evaluation

Theoretical exams
 Mid-course exam and final exam
 Practical examination
 Class Activities
 Oral examination

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	1. Biochemistry Harper illustrated, th edition .2006 2. Biochemistry of Lippincott, 2011 3. Lehninger principles of Biochemistry, 2004
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name: computer science I	
2. Course Code:	
3. Semester / Year: First stage/ second semester	
4. Description Preparation Date 23/2/2024	
5. Available Attendance Forms: Face to face , on campus	
6. Number of Credit Hours (Total) / 2 hours for each week/30 hours total Number of Units (Total)/ one unit	
7. Course administrator's name (mention all, if more than one name)	
Name: Murtadh Mohammed  Email: Murtadhmohammed@utq.edu.iq	
Name: Fatimah Jameel Email: Fatimah.Jameel@utq.edu.iq	
8. Course Objectives	
Course Objectives	<ul style="list-style-type: none">• This course aims to provide the student with a general overview of computer• Enable the student to know the basics and basic of computer.• learning computer science is to develop the ability to create efficient algorithms for problem-solving in various domains.• learning Microsoft Word is to acquire proficiency in creating and formatting documents effectively for professional or academic purposes.
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none">• Giving scientific lectures in classrooms and using (show data) for the purpose of stating the main ideas of the topic.• Assigning the student to implement a group of programs in practical laboratories.• Assigning the student to prepare brief reports on some topics and carry out homework assignments.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction into internet, what is the Internet	Introduction to internet	Lectures, discussions reports.	theoretical exam, and classroom activities
2	2	Computer Software types of Computer Software	Introduction to Computer Software	Lectures, discussions reports.	theoretical exam, and classroom activities
3	2	Microsoft Word II Creating and Formatting Documents* - Creating a new document. - Formatting texts, changing fonts, and colors.	Microsoft Word II	Lectures, discussion s, reports.	theoretical exam, and classroom activities
4	2	Styles and Headings* - Using styles to organize documents. - Adding and formatting headings and main elements.	Microsoft Word II	Lectures, discussions reports.	theoretical exam, and classroom activities
5	2	Images and Tables* - Inserting and formatting images and graphics. - Creating and formatting tables.	Microsoft Word II.	Lectures, discussions reports.	theoretical exam, and classroom activities
6	2	Lists and Numbering* - Creating and formatting ordered and unordered lists.	Microsoft Word II	Lectures, discussions reports.	theoretical exam, and classroom activities

		- Adding numbering and bullet points to paragraphs and items.			
7	2	Links and References* - Adding effective links and references to documents. - Inserting footnotes and references in different styles.	Microsoft Word II.	Lectures, discussions reports.	theoretical exam, and classroom activities
8	2	Printing and Electronic Sharing* - Printing methods and customizing settings. - Sharing documents online and via email.	Microsoft Word II	Lectures, discussions reports	theoretical exam, and classroom activities

11. Course Evaluation

- Individual and group duties and reports
- Daily exams
- Evaluation of practical skills
- Final exams


12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Microsoft office Professional 2019 . Linda Foulkes, Senior Editor: Afshaan Khan ISBN 978-1-83921-725-8
Main references (sources)	Microsoft office Professional 2010 Joyce Cox, Jo an Lambert & Curtis Frge -2-Introduction to the Theory of Computation" by Mich: Sipser: This book provides a comprehensive introduction to th theory of computation, covering topics such as automat theory, computability, and complexity theory 3- How Computers Work: The Evolution of Technology" by Ron White: This book explains the fundamentals of how computers work, including hardware components,

	input/output devices, storage systems, and networking technologies, in a clear and accessible manner
Recommended books and references (scientific journals, reports...)	/
Electronic References, Websites	/

Course Description Form

1. Course Name:	
HUMAN Anatomy	
2. Course Code:	

3. Semester / Year:	
First stage/second course	
4. Description Preparation Date:	
20-02- 2024	
5. Available Attendance Forms:	
Theoretical presence	
6. Number of Credit Hours (Total) / Number of Units (Total)	
The total number of study hours is (15) theoretical hours +practical hours=30 Number of units (total) = 2 (1+1)	
7. Course administrator's name (mention all, if more than one name)	
Name Dr. Huda Jihad Gatea Email: hodajihad@utq.edu.iq 	
8. Course Objectives	
Course Objectives	<p>1- The general goal of teaching the basic sciences of the human anatomy branch is to provide important scientific knowledge that involves knowing the structural structure of the body at the level of systems, organs, and cells.</p> <p>2 - Raising students' ability to link anatomical facts with clinical applications using models, video clips, histological slides.</p> <p>3- Anatomy is considered one of the important sciences in the field of physical education, as well as being a basic basis for identifying and understanding the principles of physical education. The student learns about the muscles that make up the body and studies the joints that the athlete relies on the muscles that participate in performing movements and exercises.</p>
9. Teaching and Learning Strategies	
Strategy	<p>There are three ways to study anatomy:</p> <p>1-The Anatomy Systemic method, which is the method that deals with the study of each of the body's systems theoretically. With a brief explanation of its relationship to other organs in the body. Using video and PowerPoint lectures on a screen Smart board in our college.</p> <p>2- The Anatomy Topographic method, which is the method that deals with dividing the body into fixed geographical areas such as the limbs, head, abdomen, and chest and then studies the tissues and organs present in each of the aforementioned sections separately.</p> <p>-3 Using anatomical models of devices for practical study</p> <p>4- Applying professional and ethical education for students to deal with human corpses./Field visits College of Medicine/National Medicine</p>

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Daily attendance	Introductory (Power point) Sculptures Structural	General Anatomy	Introduction to the human body	1	1
Class interaction		Directional Term for Anatomy	Anatomical terminology Anatomical position It is the method that deals with body division To fixed geographical areas (such as the edges and head). And the abdomen and chest.	1	2
Participation in Scientific debate		Skeletal system	The anatomical description is divided into two main parts Central skeleton Peripheral skeleton	1	3
Exams Daily		Pectoral Girdle and Upper Limbs	Bone structure: skeleton is divided for purpose	1	4
the activities		BONES	It is a method that deals with the study of bone types Bones make up skeleton of the body	1	5
Extracurriculars		Appendicular Muscles of Pelvic Girdle and Lower Limbs	It is a method that deals with the study of types cell is the building block of a living organism	1	6
		Classification of Joints	It is a method that deals with the study of types muscle tissue	1	7
		Joint Structure and Function	• It is a method that deals with the study of types joints,	1	8
		Tissue definition & classification	It is a method that deals with the study of types cell is the building block of a living organism	1	9
		Circulatory system	It is the method that deals with the study of each of the body's systems and individual dissection in complete and detailed manner, with a brief explanation of relationship to the other systems of the body.	1	10
		Lymphoid tissue	Location of the vascular system (heart, arteries, veins)	1	11
		Nervous system		1	12
					13

	Respiratory portion Conducting portion	Location of the lymph system (lymphatic capillaries) . Location (thymus gland spleen and lymph node Lymphatic nodules tonsils	14
	Digestive system	Central peripheral nervous system Respiratory part Nose, nasopharynx, trachea, bronchi). Location of different p of the digestive sys (oral cavity, mo esophagus, stomach). The small intestine, largeintestine, rectum and anus Digestive system: glands associated with the digestive system according to their locat (salivary glands, pancreas, liver, gallbladder)	15

11. Course Evaluation

Distributing the score out of 100 according to the tasks Student (theoretical part) preparation, daily attendance, daily exams (5), and monthly written exam 15=20


The practical part is an extracurricular activity + attendance + daily exams (5) + the final monthly practical exam (15) = 20

Final quest = 40 and final written exam (60) = 100 final grade

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	•

Course Description Form

1. Course Name: Public Health					
2. Course Code:					
3. Semester / Year: First / Fourth stage					
4. Description Preparation Date: 18\2\2024					
5. Available Attendance Forms: Theoretical lectures and seminars					
6. Number of Credit Hours (Total) / Number of Units (Total): 30 Theoretical hours \ 2 credit units					
7. Course administrator's name (mention all, if more than one name)					
Name: assist teacher. AL-Husnah Adil Mansoor Email: alhusnahadil@utq.edu.iq <div style="float: right; text-align: right;">  </div>					
8. Course Objectives :Introducing students to the basic methods and techniques of primary health care in all preventive, therapeutic and rehabilitative aspects to preserve the health of the individual, the family and society as a whole.					
Course Objectives		1- Teaching students about various infectious and transmissible diseases in society and all health services 2- Emphasizing the importance of health education in the educational aspect and to increase individual, family and community awareness towards achieving self-care 3- Its role is essential in preventing and controlling the spread of infectious diseases by promoting vaccination, and promoting information on a wide range of health topics, including nutrition, physical activity, mental health, and disease prevention.			
9. Teaching and Learning Strategies					
Strategy		Using modern visual educational means and group work among students through discussion and research seminars, and also using modern presentation to present scientific information and using scientific films from the information network.			
10. Course Structure					
Week	Hours	Required	Unit or subject name	Learning	Evaluation

		Learning Outcomes		method	method
1	2	Terminology about community health and its functions IC10	General items & IC10	Theoretical lectures and seminars	A written exam, scientific reports, and a semester exam, in addition to daily surprise exams and classroom discussions
2	1	Factors that predispose to the occurrence of diseases	Predisposing factors of infectious diseases	=	=
3	1	Diseases that affect the circulatory system and are more common in society, including atherosclerosis, heart attack, and strokes.	Cardiovascular diseases	=	=
4	2	Diseases that affect the digestive system, including viruses and bacteria	Gastrointestinal diseases	=	=
5	1	Skin diseases from bacteria and viruses	Skin diseases	=	=
5	1	Sexually transmitted diseases	Sexually transmitted diseases	=	=
5	3	Oncogenic diseases	- Oncogenic diseases	=	=
6	2	Diseases transmitted through the respiratory system, including bacteria and viruses	Respiratory infections	=	=
7	2	also about vaccines, their types and forms	Family planning include maternal infections, vaccination	=	=

8	1	terms about immunity	Immunology General	=	=
8	2	their types, innate immunity and acquired immunity, cells of the immune system	introduction innate & adaptive immunity	=	=
8	1	about antigens, their definition and properties,	-antigen characteristics	=	=
9	2	B cells, T cells,	B&Tcells	=	=
9	1	complement, its definition and its three types	complements	=	=
9	2	how to distinguish between them, the four types of allergies and each type about the interaction and diagnosis of diseases according to the type Allergies	Hypersensitivity types	=	=
10	3	genetic immunity, their definition and types,	Oncogenic immunity	=	=
10	2	autoimmune diseases	Auto immune diseases		

10	1	definition, immunodeficiency diseases and their types, and a study of the most common diseases in society.	Immune deficiency disease	=	==
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11. Course Evaluation: 30 marks, including daily and oral exams, reports, and student activities + 70 marks, final written exam.

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)	Lucas AO, Gilles HM, (Eds), Short Textbook of Public Health Medicine for the Tropic, (4th Ed), 2003
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Main references (sources)

Recommended books and references (scientific journals, reports...)	Predisposing Factors/Risk Factors. (n.d.). Retrieved December 26, 2021, from http://www.bccancer.bc.ca/books/uterine-cervix/predisposing-factors-risk-factors
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CDC. (2021, April 23). Diabetes Risk Factors. Centers for Disease Control and Prevention. <https://www.cdc.gov/diabetes/basics/risk-factors.html>

<https://www.medicalnewstoday.com/articles/320101>

Electronic References, Websites

<https://www.nhs.uk/conditions/cardiovascular-disease/>

Course Description Form

1. Course Name:	
Calculus and Statistic Theory	
2. Course Code:	
3. Semester / Year:	
First semester / First stage	
4. Description Preparation Date:	
2/3/2024	
5. Available Attendance Forms:	
Theoretical lectures and seminars	
6. Number of Credit Hours (Total) / Number of Units (Total)	
45 theoretical hours 3 Theoretical credit units	
7. Course administrator's name (mention all, if more than one name)	
Name: ahmed hameed kamil Email: ahmedhameed1992@utq.edu.iq	
8. Course Objectives	
Course Objectives	<ol style="list-style-type: none"> 1. This course deals with the basic concept of mathematics. 2. To learn the basic ideas of differential and integral calculus. 3. To learn about the continuity of functions and its relationship with the ends. 4. To identify the derivation of functions and the integration of different functions and its relationship to continuity. 5. To know the applications of calculus in various sciences.
9. Teaching and Learning Strategies	
Strategy	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
2-1	6	Mathematics: General concepts; coordinate and graph in plane; inequality; absolute value or magnitude; function and their graphs; displacement function; slope and equation for lines.	Mathematics: General concepts; coordinate and graph in plane; inequality; absolute value or magnitude; function and their graphs; displacement function; slope and equation for lines.	Theoretical lectures	Written exam Scientific reports Quarterly exams Daily surprise exams discussions inside the hall
3	4	Limits and continuity: Limits; theorem of limits; limit involving infinity; continuity; continuity conditions.	Limits and continuity: Limits; theorem of limits; limit involving infinity; continuity; continuity conditions.		
5-4	6	Derivatives: Line tangent and derivatives; differentiation rules; derivative of trigonometric function; practice exercises.	Derivatives: Line tangent and derivatives; differentiation rules; derivative of trigonometric function; practice exercises.		
7-6	6	Integration: Indefinite integrals; rules for indefinite integrals; integration formulas for basic trigonometric function; definite integrals; properties of definite integrals; practice exercises	Integration: Indefinite integrals; rules for indefinite integrals; integration formulas for basic trigonometric function; definite integrals; properties of definite integrals; practice exercises		
8	2	Biostatistics: General concepts of statistics; statistical methods; statistical theory; applied statistics; statistical operations.	Biostatistics: General concepts of statistics; statistical methods; statistical theory; applied statistics; statistical operations.		
10-9	6	Probability concepts: Properties of probability; Set theory and set notation (basic notation); counting techniques permutations and combinations; calculating the probability of an events; probability distribution of discrete variable; binomial distribution, Poisson distribution; continues probability distribution and normal distribution, review questions and exercises.	Probability concepts: Properties of probability; Set theory and set notation (basic notation); counting techniques permutations and combinations; calculating the probability of an events; probability distribution of discrete variable; binomial distribution, Poisson distribution; continues probability distribution and normal distribution, review questions and exercises..		
12-11	6	The concept of central tendency: Mean of sample and mean of population; median;	The concept of central tendency: Mean of sample and mean of population; median;		

		mode; measure of central tendency; review questions and exercises	mode; measure of central tendency; review questions and exercises function; definite		
15-13	9	Deviations and variation: Deviation; dispersion and variability; standard deviation and variance; coefficient of variations & standard error; correlation analysis.(regression model and sample regression equation); application of statistic in medical field; review questions and exercises.	Deviations and variation: Deviation; dispersion and variability; standard deviation and variance; coefficient of variations & standard error; correlation analysis.(regression model and sample regression equation); application of statistic in medical field; review questions and exercises.		

11.Course Evaluation

Midterm exam - 25 marks


Daily surprise exams - 5 marks

End of course exam - 70 marks

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Thomas. G.B., Calculus and analytic Geomaty, 1984.
Main references (sources)	JAMES STEWARTDC, Calculus, 6 th , 2008.
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:					
Medical Physics					
2. Course Code:					
3. Semester / Year:					
2 nd /1 st stage					
4. Description Preparation Date:					
24/2/2024					
5. Available Attendance Forms:					
Weekly					
6. Number of Credit Hours (Total) / Number of Units (Total)					
(30hr Theoretical+30hr Practical)/3 Units					
7. Course administrator's name (mention all, if more than one name)					
Name: Dr. Manar Dheyaa Salim					
Email: manardheyaa.eps@utq.edu.iq					
					
8. Course Objectives					
Course Objectives			<p>Introducing the basic concept of medical physics.</p> <ul style="list-style-type: none"> • The course deals with the concept of basic medical physics and its applications in the field of pharmacy. • Upon completion of the course, students will be able to understand the applications of physics in the medical field. 		
9. Teaching and Learning Strategies					
Strategy		<ul style="list-style-type: none"> • Lectures with discussions. • White board. • Smart screen. • Data presentation/PowerPoint. • Oral and written exams. 			
10. Course Structure					
Week	Hou rs	Required Learning Outcomes	Unit or subject name	Learning method	Evalua tion method
1	2	General concepts: physics method and standards; System Thermodynamics and Characteristics system. Maintain the principle	General concept of a thermodynamic system	Smart board and discussion lecture	Oral questions

		energy; application For thermodynamics. Zeroth law			
2	2	Learn all the concepts about temperature and pressure in medical and physical scale	Pressure; temperature in medicine and temperature scales	Smart board and discussion lecture	Oral questions
3-4	2	Identify the equation of state for ideal and real gases, equilibrium states, and general gas laws	Equation of state; ideal gas and real gas; general law of gases. equilibrium and types of equilibrium; compressibility factor, coefficient of volume expansion	Smart board and discussion lecture	Oral questions
5	2	Study of energy states, work done, and Boyle's and Charles's laws of molecular pressures	Heat and energy; work and mechanical forms of work; power; the 1st law of thermodynamics; Boyles and Charles law; practice exercises.	Smart board and discussion lecture	A surprise written exam
6	2	Studying the scientific and theoretical formulations of the first and second laws of thermodynamics	The 2nd law of thermodynamics; reversible and irreversible process; entropy and enthalpy;	Smart board and discussion lecture	Oral questions
7-8	2	Learn about heat therapy and infrared therapy	IR & Thermal therapy	Smart board and discussion lecture	Oral questions
9	2	Identify the most important concepts of the laws related to the first law of thermodynamics	Internal energy; heat capacity and adiabatic process; the relation between pressure, volume, and temperature in adiabatic process.	Smart board and discussion lecture	Oral questions
10-11	2	Study of other physical foundations, including electromagnetic and optical waves	Fundamental of physics: Kinetic theory of a gas; electromagnetic waves; physical optics.	Smart board and discussion lecture	Oral questions
12	2	Identify the nature of the effect of radiation on the human body	Radiation effects on human body. Heat transfer	Smart board and discussion	A surprise

				lecture	written exam
13	2	Identify the information derived from IR and U.V. technology as treatment	U.V and IR effects; medical and biological effects of radiation; radiotherapy.	Smart board and discussion lecture	Oral questions
14-15	2	Learn about the applications of X-ray production and absorption technology	Production of X-Ray and X-Ray spectra; absorption of X-Ray	Smart board and discussion lecture	A surprise written exam

11. Course Evaluation

Theoretical exam: 25 marks
 Class activity and attendance: 5 marks
 Practical exam: 15 marks
 Practical laboratory reports: 5 marks
 Final exam: 50 marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)

Physics for Biology and Medical Students, 2 ed.

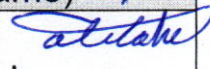
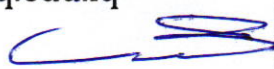
Course Description Form

1. Course Name:					
Laboratory training					
2. Course Code:					
3. Semester / Year:					
First / fifth stage					
4. Description Preparation Date:					
18-2-2024					
5. Available Attendance Forms:					
Theoretical lectures and laboratory experiments					
6. Number of Credit Hours (Total) / Number of Units (Total)					
60 huors / 2 units					
7. Course administrator's name (mention all, if more than one name)					
Name: Wafa Saleh Abdulredha Email: wafaabdulredha81@utq.edu.iq Huda jassim Mihemmat hudajassim@utq.edu.iq Amena Lafeta Muttlaq amenalafetamuttlaq@utq.edu.iq Ahmed Naeem ahmed-naeem@utq.edu.iq					
8. Course Objectives					
Course Objectives		<ul style="list-style-type: none"> • The subject is divided into two parts: a part concerned with blood and aims to strengthen the relationship between theoretical and applied subjects. The student learns how to conduct scientific experiments related to the theoretical subject by learning how to perform special tests for most blood experiments. • The other is concerned with microbiology and aims to introduce students to the shapes of bacteria, their arrangement, and the method of examining them with a microscope using simple dyes, Gram stain, spore dye, and tuberculosis bacteria dye... in addition to introducing students to the antibiotic sensitivity test and how to read the various results, and introducing students to the method of obtaining pure colonies and using them in biochemical tests and other tests. 			
9. Teaching and Learning Strategies					
Strategy		1- Conducting scientific experiments, using modern equipment for preparation ; diagnosis, using modern display devices, and downloading scientific films fr the information network. 2- Using modeling and discussion methods			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Learn how to count white and red blood cells in a blood sample	Counting red and white blood cells	Theoretical lectures and laboratory experiments	Written exam Scientific reports, daily surprise exams
2	2	Learn how to measure and determine blood hemoglobin levels	Measurement of blood hemoglobin		
3	2	Identify red blood cell indicators and perform	Red blood cell markers test		

		mathematical calculations according to previously performed analyses			
4	2	Learn how to determine the volume of compressed blood and learn the practical steps and its application	Compact cell size		
5	2	Identify and learn how to count platelets			
6	2	Learn how to calculate clotting and bleeding time and differentiate between them	Platelet count		
7	2	Learn how to know the types of blood groups and conduct laboratory experiments to determine the rate of sedimentation of red blood cells	Bleeding time tests		
8	2	Identify and learn how to apply the Coombs test and its medical and clinical utility	And coagulation		
9	2	Identify the types of dyeing and conduct special experiments	Blood type test and rate		
10	2	Identify culture media, their types, and which ones can be used for all bacterial species	Sedimentation of red blood cells		
11	2	Identifying disc diffusion and drug sensitivity tests, knowing their types and how they work, and identifying which medications can be used and are compatible with this test.	Coombs test		
12	2	Learn about the types of tests through which we diagnose bacteria and their types, such as the catalase, urease, and oxidase tests.	Dyeing methods and types		
13	2				
14	2				

15	2				
11. Course Evaluation					
Mid-course exam: 30 marks					
Weekly reports and daily surprise exams, 10 marks					
Final exam: 60 marks					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)					
Main references (sources)					
Recommended books and references (scientific journals, reports...)			-Valentin Villatoro and Michelle To . A Laboratory Guide to Clinical Hematology. 1 st ed. 2019. -Kandice Kottke-Marchant and Bruce Davis. Laboratory Hematology Practice.2012 - Medical Microbiology by Jawetz 2021		
Electronic References, Websites					

Course Description Form

1. Course Name: Medical Microbiology I					
2. Course Code:					
3. Semester / Year: First Semester / second stage					
4. Description Preparation Date: 18/2/2024					
5. Available Attendance Forms: Theoretical lectures, laboratory experiments and seminars					
6. Number of Credit Hours (Total) / Number of Units (Total)					
45 Lecture Hours + 30 Lab. Hours (for a semester)					
3 theory + 1 practical (credit unit)					
7. Course administrator's name (mention all, if more than one name)					
Name: Assistant prof. Dr. Al Taher Abbas alitaher@utq.edu.iq 					
Dr. Huda Jihad Gatea hodajihad@utq.edu.iq 					
8. Course Objectives Providing students with scientific and applied information in the following areas:					
Course Objectives		Medical microbiology is concerned with knowing the different types of bacteria, the shape and naming of all microorganisms, it involve identification of the part identifying the parts of the microscope and how it can be used to diagnose different types of bacteria, and classifying bacteria according to their living, for example, aerobic and non-aerobic, according to their shape as bacillus and spherical, as well as according to their interaction with dye such as gram-negative and gram-positive.in addition this field studies How to grow bacteria in the media and how to sterilize. It Provides a basic understanding of the shape, anatomy, physiology and genetics of bacteria. in addition to that Methods of management, identification of bacterial disease and use of antibiotic susbtibility screening to determine the appropriate antibiotic for bacterial treatment .			
9. Teaching and Learning Strategies					
Strategy		9. Teaching and Learning Strategies include: conducting practical experiments, using modern equipment for preparation and diagnosis, the use of the Modern display technologies and watching documentaries.			
10. Course Structure					
Week	Hours	Required Learning	Unit or subject	Learning	Evaluation

		Outcomes	name	method	method
1	2	To know the importance and the history of microbiology	The importance of microbiology History of microbiology	Theoretical lectures, laboratory experiments, e-learning and student groups	Written exam Scientific reports Quarterly exams Daily surprise exams Discussions inside the hall
2		Recognize the anatomy of bacteria	Edges of surfaces . Cell wall capsule for Gram-negative bacteria . Cytoplasm membrane	=	=
3	2	Identify the physiology of bacteria	Determinants of chemical and physical growth. Growth, growth curve and bacterial reproduction	=	=
4	2	Identify ways of gene transmission (bacterial inheritance)	Definition of genetic elements Spontaneous gene mutations Transfer, transformation, conjugation and gene stigmatization	=	=
5	2	Learn about modern techniques in DNA replication and methods of DNA replication, transcription and translation	Biotechnology and DNA	=	=
6	2	Study of spore forming in bacteria	Spore formation and reproduction	=	=
7	2	Learn about sterilization methods	Physical and chemical methods	=	=
8	2	Study of antibacterial types	Chemotherapy	=	=
9	1	Identification of positive and negative bacteria for Gram stain, forms and classification of bacteria	Forms of bacteria pouring and division	=	=
10	3	Identify the types, forms, presence and methods of diagnosis and treatment of staphylococcal genera	Streptococcus pyogenes; Streptococcus Pneumonia	=	=
11	1	Identify the types, forms, presence and methods of diagnosis and treatment of bacterial genera Bacillus spores	B. anthracis, B subtilis, B. ceseus.	=	=
12	3	Identify the types, forms, presence and methods of diagnosis and treatment of Bacillus bacteria that cause tetanus and botulism	Clostridium perfringens; Clostridium tetani; Clostridium botuliun	=	=
13	2	Identify the types, forms, presence and methods of diagnosis and treatment of Bacillus bacteria that cause diphtheria and bacteria that cause tuberculosis	Corynebacterium diphtheria Mycobacterium tuberculosis; M. leprae	=	=
14	4	Identify the types, forms,	Chlamydiae;	=	=

		presence and methods of diagnosis and treatment of bacteria	Actinomycetes		
15	3	Identify the bacteria of the intestinal family, forms, presence and methods of diagnosis and treatment	E. coli; Klebsiella spp.; Citrobacter , Serratia,	=	=

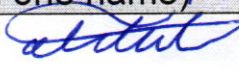
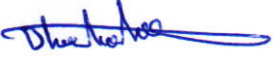

11.Course Evaluation

Midterm exam - 20 marks
 Weekly reports - 5 marks
 Daily surprise exams - 5 marks
 Final practical exam - 10 marks
 End of course exam - 60 marks

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Jawetz Melnick & Adelbergs Medical Microbiology 27 E (Lange) 27th Edition by Karen Carroll (Author), Janet Butel (Author), Stephen Morse (Author) Bailey & Scott's Diagnostic Microbiology 14th Edition by Patricia Tille (Author))
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name: Microbiology II	
2. Course Code:	
3. Semester / Year: Second semester / Second stage	
4. Description Preparation Date: 18/2/2024	
5. Available Attendance Forms: Theoretical lectures, laboratory experiments and seminars	
6. Number of Credit Hours (Total) / Number of Units (Total)	
45 theoretical hours + 30 practical hours/ 3 Theoretical + 1 Practical (4 credit units)	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Ali Taher Abbas Email : alitaher@utq.edu.iq 	
Dr. dhurgham.alfahad@sci.utq.edu.iq 	
Dr. Huda Jassim Mohammed hudajassim@utq.edu.iq 	
8. Course Objectives	
Course Objectives	Virology, medical parasitology and immunology: It is concerned with knowing how to diagnose diseases according to laboratory results. And the study of many types of parasites, shape, place of living, name of the disease, life cycle of the parasite and scientists and symptoms. Discuss the life cycle of the virus, types and stages of infection and incubation period, route of infection, prevention and treatment. It aims to provide the student with knowledge about disease development, form, laboratory diagnostics, identification, diseases, clinical manifestations of parasitic and viral diseases and the basic concepts of puppies immunization against these diseases. It also aims to know the methods of specialized and non-specialized immune response as well as the most important diseases resulting from an excess or decrease in the immune response.
9. Teaching and Learning Strategies	
Strategy	Conducting practical experiments and using modern equipment for preparation, diagnosis and the use of devices Modern display and downloading scientific films from the information network

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Introduction and comparison between viruses, bacteria and other microbes	Virology: Introduction, Comparison between viruses and bacteria and other microbes;	Theoretical lectures, laboratory experiments, e-learning and student groups	Written exam Scientific reports Quarterly exams Daily surprise exams Discussions inside the hall
2	1	Learn about ways to classify viruses	Classification of viruses		
3	1	Learn ways viruses multiply	Replication		
4	1	Learn about antivirals	Chemotherapy		
5	2	Identify the composition of the virus, the diseases it causes, the locations and methods of isolation, diagnosis and treatment	Herpes viridae		
6	2	Identify the composition of the virus, the diseases it causes, the locations and methods of isolation, diagnosis and treatment	Orthomyxo viruses		
7	2	Identify the composition of the virus, the diseases it causes, the locations and methods of isolation, diagnosis and treatment	Paramyxo viruses		
8	2	Identify the composition of the virus, the diseases it causes, the locations and methods of isolation, diagnosis and treatment	Retro viruses		
9	2	Identify the composition of the virus, the diseases it causes, the locations and methods of isolation, diagnosis and treatment	Hepato viruses		
19	2	Identify the composition of the virus, the diseases it causes, the locations	Oncogenic viruses		

		and methods of isolation, diagnosis and treatment			
1	1	Learning the important terms in parasitology ,difintions ,life cycls ,hots	Introduction		
2	1	Learning the Features of protozoa ,amoeba	Protozoa		
3	1	Studying E. histolutica ,stages ,life cycle ,pathogenisity	E. histolutica		
4	1	Studying the non pathogenic Ameoba	E.coli ,E.coli , Enolimax nana		
5	1	Studying the flagellates of intestine and oral cavity and genital area	G.lamblia ,T.tenax ,T. vaginalis ,T.gondii		
6	1	Studying the flagellates of intestine and oral cavity and genital area	G.lamblia ,T.tenax ,T. vaginalis ,T.gondii		
7	1	Studying the flagellates of intestine and oral cavity and genital area	G.lamblia ,T.tenax ,T. vaginalis ,T.gondii		
8	1	Learning the important features of malarial parasites	Plasmodium ssp .		
9	1	Comparision between Plasmodium spp	Plasmodium ssp .		
10	1	Studying helminths ,life cycles ,pathogenesis ,stages, infective stages ,diagnostic stages	Taenia spp.		
11	1	Studying helminths ,life cycles ,pathogenesis ,stages, infective stages ,diagnostic stages	Hymenolepisnana ,H.diminuta		
12	1	Studying helminths ,life cycles ,pathogenesis ,stages, infective stages ,diagnostic stages	Echinococcus granulosus		
13	1	Studying helminths ,life cycles ,pathogenesis ,stages, infective stages ,diagnostic stages	Diphyllobotheium latum		
14	1	Studying helminths ,life cycles ,pathogenesis ,stages, infective stages ,diagnostic stages	Ascaris lumerciodes		
15	1	Studying helminths ,life cycles ,pathogenesis ,stages, infective stages	Entrobis vermicularis		

		, <i>diagnostic stages</i>			
1	2	Innate and adaptive immunity	Innate and adaptive immunity		
2	1	Antigen Characteristic	Antigen Characteristic		
3	1	B and T cells	B and T cells		
4	1	Complements refer to a system of several proteins that act as enhancers for the immune system's activity. Complements play an important role in the specialized immune response and enhance the effectiveness of the immune defense against diseases and infections.	Complements		
5	2	Hypersensitivity types	Hypersensitivity types		
6	3	Oncogenic immunity	Oncogenic immunity		
7	2	Auto immune diseases	Auto immune diseases		
8	1	Immune deficiency diseases	Immune deficiency diseases		

11. Course Evaluation

Midterm exam - 20 marks

Weekly reports - 5 marks

Daily surprise exams - 5 marks

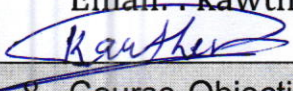
Final practical exam - 10 marks

End of course exam - 60 marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Jawetz Melnick & Adelbergs Medical Microbiology 27 E (Lange) 27th Edition by Karen Carroll (Author), Janet Butel (Author), Stephen Morse (Author) Fundamental Immunology- Seventh Edition by Willian E. Paul
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Democracy	
2. Course Code:	
3. Semester / Year:	
First/second	
4. Description Preparation Date:	
2024/2/23	
5. Available Attendance Forms:	
Theoretical lectures	
6. Number of Credit Hours (Total) / Number of Units (Total)	
15 Hours/ 1 Units	
7. Course administrator's name (mention all, if more than one name)	
Name: kawther abdul hadi saleh	
Email: : kawther.abdulhadi.isl@utq.edu.iq	
	
8. Course Objectives	
Course Objectives	1= Consolidating the principles of democracy among students as it is the most important outcome of the current regime in Iraq. 2= Studying the most important democratic systems and researching the experiences of different countries.
9. Teaching and Learning Strategies	
Strategy	The method of presenting lectures through PowerPoint and theoretical explanation was adopted Interaction and participation of students, conducting daily written and oral examinations, To consolidate the scientific material among students.
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
The first	1	Political system, definition Democracy.	The concept of democracy.	Explain and share Students.	Evaluate posts
the second	1	History of democra	Democracy between universality and privacy.	Explanation and written examination.	exam degree
the third	1	Direct democracy And semi-direct democracy.	Forms of democracy.	Explanation and student participation.	Evaluate posts
the fourth	1	representative democracy, Pillars of the representative system.	Popular censorship.	Explanation and student participation	Evaluate posts
Fifth	1	Parliamentary system, system Majlis, presidential system.	Forms of the representational system.	Explanation and oral exam	Exam evaluation
VI	1	The concept of election, conditions for election.	The election.	Explanation and student participation.	Evaluation of contributions
Sevent	1	Party elements.	political parties.	Explanation and student participation.	Evaluate posts
VIII	1	Types of party systems.	Classification of political parties.	Explanation and written examination.	Exam evaluation

11. Course Evaluation

Distribution of grades out of 100 according to 30 marks in the middle of the first course and 70 at the end of the first course.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)

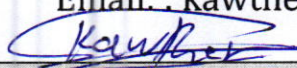
Main references (sources)

Dr. Saleh Jawad, Dr. Ali Ghaleb
Al-Ani, Political Systems

Recommended books and references
(scientific journals, reports...)

Electronic References, Websites

Course Description Form

1. Course Name:	
Baath Party crimes	
2. Course Code:	
3. Semester / Year:	
First/second	
4. Description Preparation Date:	
2024/2/23	
5. Available Attendance Forms:	
Theoretical lectures	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 Hours/ 2 Units	
7. Course administrator's name (mention all, if more than one name)	
Name: kawther abdul hadi saleh Email: : kawther.abdulhadi.isl@utq.edu.iq 	
8. Course Objectives	
Course Objectives	1= Informing this generation about the crimes the Baath regime 2= Enabling students to be armed with irrefutable truth to confront and expose lies about polishing the image of the criminal regime.
9. Teaching and Learning Strategies	
Strategy	The method of presenting lectures through PowerPoint and theoretical explanation was adopted Interaction and participation of students, conducting daily written and oral examinations, To consolidate the scientific material among students.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
The first	2	The concept of crimes, types international crimes, Decisions issued From the Supreme Criminal Court.	The crimes of the Baath regime according to Iraqi Criminal Court Supreme.	Explain and share Students.	Evaluate posts
the second	2	Mechanisms of psychological crimes Its effects, social crimes.	Psychological and social crimes And its effects.	Explanation and written examination.	exam degree
the third	2	Humanrights violations.	Violations of Iraqi laws.	Explanation and student participation.	Evaluate posts
the fourth	2	Prison and detention places.	Resolutions of political violations.	Explanation and student participation	Evaluate posts
Fifth	2	Military and radiation pollution And mine explosion.	Environmental crimes.	Explanation and oral exam.	Exam evaluation
VI	2	Drying the marshes, razing palm groves.	Destruction of cities and villages.	Explanation and student participation.	Evaluation of contributions
Sevent	2	Events of 1963, events extending from 1979/2003.	Mass grave crimes.	Explanation and student participation.	Evaluate posts
VIII	2	Chronological classification of mass graves for the period 1963/2003.	The events of the Shaabani uprising.	Explanation and written examination.	Exam evaluation
Ninth	2	Cemeteries related to the Iranian war, cemeteries of the Barzaniya Kurds, cemeteries of the Anfal massacre, cemeteries of the Shaabaniya uprising.	Genocide graves for duration 1979/2003.	Explanation and oral exam.	Exam evaluation

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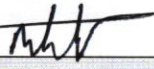
11. Course Evaluation

Distribution of grades out of 100 according to 30 marks in the middle of the first course and 70 at the end of the first course.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Book of crimes of the Baath regime in Iraq approved by Ministry of Higher Education and Scientific Research.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name: computer science					
2. Course Code: /					
3. Semester / Year: First semester, Second year					
4. Description Preparation Date: 23/2/2024					
5. Available Attendance Forms: Face to face, on campus					
6. Number of Credit Hours (Total) / 30 hours total Number of Units (Total) / one unit					
7. Course administrator's name (mention all, if more than one name)					
Name: Fatimah Jameel Email: Fatimah.Jameel@utq.edu.iq					
Name: Murtadh Mohammed  Email: Murtadmohammed@utq.edu.iq					
8. Course Objectives					
Course Objectives		<ul style="list-style-type: none"> • This course aims to provide the student with a general overview of Microsoft Office and its applications • Enable the student to know the basics and basic concept of Microsoft PowerPoint. • Enable the student to use the keyboard by identifying the keys, their shortcuts, and the functions of each. 			
9. Teaching and Learning Strategies					
Strategy		<ul style="list-style-type: none"> • Giving scientific lectures in classrooms and using (show data) for the purpose of stating the main ideas of the topic. • Assigning the student to implement a group of programs in practical laboratories. • Assigning the student to prepare brief reports on some topics and carry out homework assignments. 			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction to the concept The basics of presentation	General concepts about presentation	Lectures, discussions, reports.	theoretical exam, and classroom activities

2	2	Explaining the details of the program interface, main bars, and toolbars Quick access	General structure of the program	Lectures, discussions reports.	theoretical exam, and classroom activities
3	2	Introduction to concept and basics Presentation	Methods for opening a presentation	Lectures, discussions, reports.	theoretical exam, and classroom activities
4	2	Methods of creating a presentation Presentation, add text to the slide, save and delete Slides	Create a presentation	Lectures, discussions reports.	theoretical exam, and classroom activities
5	2	Methods of presenting slides to the audience (viewing, previewing, reading elements on the slide)	Presentation method	Lectures, discussions reports.	theoretical exam, and classroom activities
6	2	Slid Layout and formatting, Using templates and themes	Working with slides	Lectures, discussions reports.	theoretical exam, and classroom activities
7	2	Adding and formatting images, Inserting and editing shapes, Inserting and formatting audio and video	Inserting Multimedia	Lectures, discussions reports.	theoretical exam, and classroom activities
8	2	Creating and customizing charts, Adding and formatting graphs, Chart animations	Charts and Graphs	Lectures, discussions reports.	theoretical exam, and classroom activities

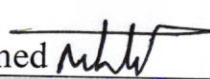
11.Course Evaluation

- Individual and group duties and reports
- Daily exams
- Evaluation of practical skills
- Final exams

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Microsoft office Professional 2019 . Linda Foulkes, Senior Editor: Afshaan Khan ISBN 978-1-83921-725-8
Main references (sources)	1. Microsoft office Professional 2010 Joyce Cox, Jo an Lambert & Curtis Frge
Recommended books and references (scientific journals, reports...)	/
Electronic References, Websites	/

Course Description Form

1. Course Name: computer science					
2. Course Code: /					
3. Semester / Year: Second semester , Second year					
4. Description Preparation Date:23/2/2024					
5. Available Attendance Forms: Face to face , on campus					
6. Number of Credit Hours (Total) /30 hours (total) Number of Units (Total) / one unit					
7. Course administrator's name (mention all, if more than one name)					
Name: Fatimah Jameel Email: Fatimah.Jameel@utq.edu.iq					
Name: Murtadh Mohammed  Email: Murtadmohammed@utq.edu.iq					
8. Course Objectives					
Course Objectives		A course that aims to teach the fundamental principles of biostatistics to public health students. It can be considered as an introductory course in biostatistics for those students who plan to use the knowledge they acquire to learn more advanced techniques in future statistical and biostatistical coursework.			
9. Teaching and Learning Strategies					
Strategy		<ul style="list-style-type: none"> • Giving scientific lectures in classrooms and using (show data) for the purpose of stating the main ideas of the topic. • Assigning the student to implement a group of programs in practical laboratories. • Assigning the student to prepare brief reports on some topics and carry out homework assignments. 			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Open the Excel file and learn about the program interface	The concept Excel	Lectures, discussions, reports.	theoretical exam, and classroom activities
2	2	Identify columns and rows, ways to add and delete them, what we	Working on Excel file	Lectures, discussions, reports.	theoretical exam, and classroom activities

		mean by the active cell, and adding data to the cells.			
3	2	The concept of SPSS	Introduction the concept and basics of SPSS	Lectures, discussions, reports.	theoretical exam, and classroom activities
4	2	SPSS Environment: data editor, output viewer, syntax editor – Data view window – SPSS Syntax – Data creation – Importing data – Variable types in SPSS and Defining variables – Creating a Codebook SPSS	Introduction SPSS	Lectures, discussions, reports.	theoretical exam, and classroom activities
5	2	Computing Variables - Recoding (Transforming) Variables: Recoding Categorical String Variables using Automatic Recode - Rank Cases - Sorting Data - Grouping or Splitting Data	Working with Data	Lectures, discussions, reports.	theoretical exam, and classroom activities
6	2	Descriptive Statistics for Continuous Variables - The Explore procedure	Working with Data	Lectures, discussions, reports.	theoretical exam, and classroom activities
7	2	Calculating statistical properties of variables	Calculating statistical properties variables	Lectures, discussions, reports.	theoretical exam, and classroom activities

11. Course Evaluation

- Individual and group duties and reports
- Daily exams
- Evaluation of practical skills
- Final exams

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)

1. SPSS for Intermediate Statistics: Use and Interpretation, Nancy L. Leech et. al., Second edition

	published in 2005 by Lawrence Erlbaum Associates, Inc.
Main references (sources)	1- IBM 2016, IBM Knowledge Center: SPSS Statistics, IBM viewed 18 May 2016, https://www.ibm.com/support/knowledgecenter/SSLVMB/welcome/
Recommended books and references (scientific journals, reports...)	/
Electronic References, Websites	/

Course Description Form

1. Course Name:					
Pathophysiology					
2. Course Code:					
3. Semester / Year					
First Third					
4. Description Preparation Date:					
21/2/2024					
5. Available Attendance Forms:					
Attendance at the lecture					
6. Number of Credit Hours (Total) / Number of Units (Total)					
45threotical+30partical/3threotical +1partical					
7. Course administrator's name (mention all, if more than one name)					
Name: Shireen ali hasan					
Email: shireenalihasan@utq.edu.iq					
8. Course Objectives					
Course Objectives	diseases they cause..... • ..its effect on living cell tissue and the pathological changes it causes...Methods of prevention and treatment to identify pathological cardiovascular disorders.....				
9. Teaching and Learning Strategies					
Strategy	Viewing pathological cases using an electron microscope and scientific films inside the hall to document the pathological cases				
10. Course Structure					
W	H	Required Learning Outcomes	Unit or subject name	Lea rnin g met hod	Evaluation method
1	3	Identify the Hyperemia; Congestion and edema; Thrombosis; embolism and infarction; Shock; Coronary heart disease and MI; Rheumatic heart disease; Heart failure; Acute pulmonary edema; Essential hypertension;	Disorders of cardiovascular system: Hyperemia; Congestion and edema		written exams Explanation in class
2		Secondary hypertension; Malignant hypertension; Hypotension; Aneurysm versus varicose veins			

4	3	Tuberculosis;Respiratory distress syndrome; Bronchial asthma; Emphysema and bronchiectasis;			
	3	Cystic fibrosis;Pulmonary embolism; Pulmonary hypertension			
5	3	NephroticsyndromeGlomerulonephritis; Diabetic glomerulosclerosis;Hypertensive glomerula diease;	Disorders of respirator system		
6	3	Pyelonephritis; rug related nephropathies; Acute renal failure; Chronic renal failure.	Disorders of renal system		
7	3	Peptic ulcer and ZollingerEllison syndrome; Irritable bowel syndrome; Crohn's disease; Diarrhea; Celiac disease;	Disorders of and hepatobiliary systems		
8	3	Viral hepatitis; Primary biliary cirrhosis; Liver failure; Cholelithiasis			
9	3	: Cushing syndrome. Adrenal corticalInsufficiency (primary and secondary). Congenital adrenal hyperplasia. Pheochromocytoma.	Disorders of adrenal function		
10	3	Diabetes mellitus and metabolic syndrome; Dyslipoproteinemia. Neoplasia	Metabolic &rheumatic disorders of skeletal system		
11	3	-Osteoporosis, osteomalacia & rickets, rheumatoidarthritis, systemic lupus erythromatosus, ankylosing spondylitis, gout, osteoarthritis syndrome.	alterations in the immune respons		
12					
13	3	(pathophysiology of immunopathology):Hypersensitivity disorders.Transpalantation immunopathology.Immunodeficiency disorders.			
14	3	Cell injury and tissue response; Degeneration; Necrosis; Atrophy;			

Course Description Form

1. Course Name:

Human rights and democracy

2. Course Code:

3. Semester / Year:

The first/first

4. Description Preparation Date:

29/2/2024

5. Available Attendance Forms:

Theoretical lectures

6. Number of Credit Hours (Total) / Number of Units (Total)

30hours theoreticl/2theoretical units

7. Course administrator's name (mention all, if more than one name)

Name: hala mizher chaed

Email: halamizher@utq.edu.iq

8. Course Objectives

Course Objectives

Promoting the student's culture, rights and duties

Freedom of opinion and the correct choice of politicians to represent them in state

9. Teaching and Learning Strategies

Strategy

Giving lectures to students in theory, explanation, student participation, and daily exams.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

The first	2	Definition of right	-The concept of human rights	Delivering lecture, explaining a	Student participation in the
the second	2	Customary stage Constitutional stage International stage	2-The historical development of human rights	clarifying important topics on the	lecture is go
the third	2	Natural right Positive right Right to law United Nations Conventions on	3-Types of human rights	blackboard, and asking students questions about	
the fourth	2	the Rights of the Child	4-Children's right	the\ topic	
Fifth	2	Universal Declaration of Human Rights	5- International legitimacy of human rights		
VI	2	The concept of administrative corruption Types of administrative corruption	6-Administrative corruption		
Sevent	2	Definition of democracy, types and goals	7-Democracy		
VIII	2	Freedom of speech	8-Freedom		
Ninth	2	Give legitimacy Availability of participation freedom of choice	9- The importance elections		
The tenth	2	Parliamentary system Vertical system	10-Governance systems		

Course Description Form

1. Course Name: computer science I	
2. Course Code: /	
3. Semester / Year: 2023-2024 First stage/ First semester	
4. Description Preparation Date: 23/2/2024	
5. Available Attendance Forms: Face to face , on campus	
6. Number of Credit Hours (Total) / 2 hours for each week/30 hours total Number of Units (Total)/ one unit	
7. Course administrator's name (mention all, if more than one name)	
Name: Manar Dheyaa <i>Manar D.</i> Email: Manardheyaa.eps@utq.edu.iq	
Name: Murtadh Mohammed <i>Murtadh</i> Email: Murtadhmohammed@utq.edu.iq	
8. Course Objectives	
Course Objectives	<ul style="list-style-type: none"> This course aims to provide the student with a general overview of computer Enable the student to know the basics and basic of computer. learning computer science is to develop the ability to create efficient algorithms for problem-solving in various domains. learning Microsoft Word is to acquire proficiency in creating and formatting documents effectively for professional or academic purposes.
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none"> Giving scientific lectures in classrooms and using (show data) for the purpose of stating the main ideas of the topic. Assigning the student to implement a group of programs in practical laboratories. Assigning the student to prepare brief reports on some topics and carry out homework assignments.

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction to the computer and Basic computer knowledge and its types.	Introduction to computer	Lectures, discussions, reports.	theoretical exam, and classroom activities
2	2	types of operating systems.	operating systems	Lectures, discussions, reports.	theoretical exam, and classroom activities
3	2	Learning all about Windows 7.	Windows 7	Lectures, discussions, reports.	theoretical exam, and classroom activities
4	2	Learning the most important keyboard shortcuts.	keyboard shortcuts	Lectures, discussions, reports.	theoretical exam, and classroom activities
5	2	Learning the basics of office productivity software (Microsoft Office).	An introduction to Microsoft Office.	Lectures, discussions, reports.	theoretical exam, and classroom activities
6	2	Learning the basics of Microsoft Word.	An introduction to Microsoft Word.	Lectures, discussions, reports.	theoretical exam, and classroom activities
7	2	Editing, creating, and saving Word files and exporting them as PDFs.	Microsoft Word.	Lectures, discussions, reports.	theoretical exam, and classroom activities

11. Course Evaluation

- Individual and group duties and reports
- Daily exams
- Evaluation of practical skills
- Final exams

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Microsoft office Professional 2019 . Linda Foulkes, Senior Editor: Afshaan Khan ISBN 978-1-83921-725-8
Main references (sources)	Microsoft office Professional 2010 Joyce Cox, Jo an Lambert & Curtis Frge -2-Introduction to the Theory of Computation" by Michael Sipser:

	<p>This book provides a comprehensive introduction to the theory of computation, covering topics such as automata theory, computability, and complexity theory</p> <p>3- How Computers Work: The Evolution of Technology" by Ron White: This book explains the fundamentals of how computers work, including hardware components, input/output devices, storage systems, and networking technologies, in a clear and accessible manner</p>
Recommended books and references (scientific journals, reports...)	/
Electronic References, Websites	/

Course Description Form

1. Course Name:	
New Headway Plus, Beginner Student's	
2. Course Code:	
3. Semester / Year:	
First year\first semester	
4. Description Preparation Date:	
2024\3\2	
5. Available Attendance Forms:	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2/2	
7. Course administrator's name (mention all, if more than one name)	
Name: Mokhalad naji Email: mokhaladalmusawi@gmail.com	
8. Course Objectives	
<p>Course Objectives</p>	<p>Effective communication: Learn English in the field of pharmacy to enable students to communicate effectively with patients and colleagues in the profession. Pharmacists need to understand and guide patients clearly and accurately, and English is a fundamental tool for this, especially in the health care institution. English is the official language of communication in the health care institution.</p> <p>Understanding medical and pharmaceutical terminology: Pharmacy students need to understand medical and pharmaceutical terms and concepts in English. Understanding these terms helps them read and understand scientific studies and research in the medical field accurately.</p> <p>Reading and understanding scientific research: Pharmacists need to read and understand scientific research articles in fields such as clinical pharmacy, pharmaceutical sciences, pharmaceutical chemistry, and other related fields. Therefore, learning English is crucial for understanding these research</p>

studies and benefiting from them.

9. Teaching and Learning Strategies

Strategy

Strategies for teaching English in the field of pharmacy should be designed to meet the needs of students and the specific requirements of the profession. Here are some effective strategies that can be used:

1. Pharmacy-centered educational projects: Educational projects can be designed to include multimedia activities such as preparing research reports or giving presentations on pharmaceutical topics in English. These projects enhance speaking, writing, listening, and reading skills.
2. Specialized conversations: Specialized conversation sessions can be organized on specific pharmaceutical topics in English. Students can discuss various clinical cases and pharmaceutical scenarios practically and applicatively.
3. Utilizing technology: Technology can be used in teaching English in pharmacy through the use of smartphone applications or interactive software that enhance the foreign language skills.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Communicative	Hello Your world All about you Family and friends The way I live Every day 2 My favorites Where I live	Communicative Approach	Communicative

			Times past We had a great time I can do that Please and thank you Here and now It's time to		
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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)	Reference: John and Liz Soars, New Headway Plus, Beginner Student's Book, Oxford
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:

Histology

2. Course Code:

3. Semester / Year:

First/first stag

4. Description Preparation Date:

24/2/2024

5. Available Attendance Forms:

Theoretical lectres (PowerPoint ,PDF)

6. Number of Credit Hours (Total) / Number of Units (Total)

60huors/3units

7. Course administrator's name (mention all, if more than one name)

Name: Abeer hadi Farhood

Email: abeerhadi21@utq.edu.iq



8. Course Objectives

Course Objectives	The student knows the basic information in cytology and histology. To learn about the differ types of organs that make up the body. The student should know scientific developments in field of cell science and histology. To use laboratory tools such as the microscope. It also aims identify the various devices, the functions of these devices, and their basic components.
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9. Teaching and Learning Strategies

Strategy	Using the lecture presentation method via (PowerPoint, PDF), downloading scient films from the Internet, using the discussion method through questions and answers students.
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Identify Circulatory system, definition Student of the function of this system where blood transports loaded	Identifying the Circulatory system and its functions	Lectures theory Scientific films	Exam Editorial Reports Scientific Exams Daily

		<p>blood With oxygen a food From the heart the cells. Transportin waste and gases such as Carbon Dioxide From cells to the heart To output it via the device Breat out the body</p>			<p>Surprise discussions Inside the class</p>
2	2	<p>Definition of student With the lymphatic system It is a system consisting of complex network of Vessels and tissues and the organs. and it lies His role in the governorate On fluid balance body through Conjugating him Excess fluids And particles from tissues into the bloodstream.</p>	<p>The definition With the system Lymphatic</p>		
3	2	<p>Introducing the student to the system. The digestive system is the digestiv system Responsible f receiving food, And break it down to Its nutritional elemen (a process called digestion), And absor those nutrients and transport them to blood stream, And disposal of waste and non-recyclable parts For digestion by the body.</p>	<p>The definition With a system digestion</p>		
4	2	<p>Definition of student With glands Appendi With the digestive system The importan of these glands Its types and functions Each of them</p>	<p>Definition of types The main gland The supplement With the digestive system</p>		
5	2	<p>Defining the student the system Respirato</p>	<p>Identify the device Respiratory</p>		

get it out.

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

The mid-course exam is 20 marks and 10 marks for the practical subject Weekly reports and daily surprise exams of 10 marks

Final exam: 60 marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)


Main references (sources)

Recommended books and references (scientific journals, reports...)

**Atlas of Human Histolog
A Guide to Microscopic Structure of
Cells, Tissues and Organs 2019
Robert L. Sorenson
Handbook of
Basic General
Histology
Author: Datis Kalal 2023**

Electronic References, Websites

Course Description Form

1. Course Name:					
Humam biology					
2. Course Code:					
First stage/					
3. Semester / Year:					
First/first stage					
4. Description Preparation Date:					
25/2/2024					
5. Available Attendance Forms:					
Theoretical lectres (PowerPoint ,PDF)					
6. Number of Credit Hours (Total) / Number of Units (Total)					
60huors/3units					
7. Course administrator's name (mention all, if more than one name)					
Name: Abeer hadi Farhood					
Email: abeerhadi21@utq.edu.iq					
					
8. Course Objectives					
Course Objectives	Studying biology and learning about all the basics of survival in general, which allows learn about more profound things such as how cells interact in his body when he is infected wi disease, learning the importance of biology that can be the solution to some probl understanding and introducing students to some basic matters. Which humans cannot cont to stay alive if they do not learn its basics and master it correctly				
9. Teaching and Learning Strategies					
Strategy	Using the lecture presentation method via (PowerPoint, PDF), downloading scientific film the Internet, using the discussion method through questions and answers for students.				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	22 Introduction to medic biologyHuman and study some characteristics	Definition of science Medical biology	Theoretical lecture Scientific films	Exam Editorial Reports Scientific

		The basics of life.	And study the characteristics of life		Exams Daily Surprise discussion Inside the class
2	2	Cell definition and structure Its components Its composition and knowledge The function of each	Identify On the cell And its compositions		
3	2	Human genetics (chromosomes)	Chromosomes DNA RNA		
4	2	Identify tissues in the human body Which include Epithelial tissue And bones and cartilage	Recognition Species The main one is tissue the body		
5	2	Connective tissue or Macrophages and their functions Main and its types	The definition With connective tissues		
6	2	The importance of nutrition Health in our lives	Identify molecules Basic big		
7	2	Identify the device Nervous Its importance and knowledge And its functionality	identification Nervous system		
8	2	Identify the device Peripheral nervous system And recognize the importance Body functions	identification the device Peripheral nervous system		

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

The mid-course exam is 20 marks and 10 marks for the practical subject

Weekly reports and daily surprise exams of 10 marks

Final exam: 60 marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)

Main references (sources)

Recommended books and references (scientific journals, reports...)

Atlas of Human Histology
A Guide to Microscopic Structure of
Cells, Tissues and Organs 2019
Robert L. Sorenson
Handbook of
Basic General
Histology
Author: Datis Kalal 2023

Electronic References, Websites

Course Description Form

1. Course Name:	
English	
2. Course Code:	
3. Semester / Year:	
Fourth year\First semester	
4. Description Preparation Date:	
2024\3\2	
5. Available Attendance Forms:	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 hours / one credit unit	
7. Course administrator's name (mention all, if more than one name)	
Name: Mokhalad naji Email: mokhaladalmusawi@gmail.com	
8. Course Objectives	
Course Objectives	<p>Effective communication: Learning English in the field of pharmacy aims to enable students to communicate effectively with patients and colleagues in the profession. Pharmacists need to understand and guide patients clearly and accurately, and English is a fundamental tool for this, especially if English is the official language of communication in the healthcare institution.</p> <p>Understanding medical and pharmaceutical terminology: Pharmacy students need to understand medical and pharmaceutical terms and concepts in English. Understanding these terms helps them read and understand scientific studies and research in the medical field accurately.</p> <p>Reading and understanding scientific research: Pharmacists need to read and understand scientific research and articles in fields such as clinical pharmacy, pharmaceutical science, pharmaceutical chemistry, and others. Therefore, learning English is crucial for understanding these research studies and benefiting from them.</p>
9. Teaching and Learning Strategies	
Strategy	<p>Strategies for teaching English in the field of pharmacy should be designed to meet the needs of students and the specific requirements of the profession. Here are some effective strategies that can be used:</p> <p>Pharmacy-centered educational projects: Educational projects can be designed to include multimedia activities such as preparing research reports or giving</p>

presentations on pharmaceutical topics in English. These projects enhance speaking, writing, listening, and reading skills.

Specialized conversations: Specialized conversation sessions can be organized on specific pharmaceutical topics in English. Students can discuss various clinical cases and pharmaceutical scenarios practically and applicatively.

Utilizing technology: Technology can be used in teaching English in pharmacy through the use of smartphone applications or interactive software that enhance the four language skills.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1	Communicative	Introduction At pharmacist's Tenses Idioms How to structure a sentence How to make a question Where I live Times past We had a great time I can do that Please and thank you Here and now It's time to Adjectives and nouns Describing people ,things State and activity verbs Narrative tenses Spelling and pronunciation Phrasal verbs	Communicative Approach	Communicative

11. Course Evaluation

Midterm exam - 25 marks
Daily surprise exams - 5 marks
End of course exam - 70 marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Reference: John and Liz Soars, New Headway Plus, Beginner Student's Book, Oxford
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
English	
2. Course Code:	
3. Semester / Year:	
Fourth year\Second semester	
4. Description Preparation Date:	
2024\3\2	
5. Available Attendance Forms:	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 hours / one credit unit	
7. Course administrator's name (mention all, if more than one name)	
Name: Mokhalad naji Email: mokhaladalmusawi@gmail.com	
8. Course Objectives	
Course Objectives	<p>Effective communication: Learning English in the field of pharmacy aims to enable students to communicate effectively with patients and colleagues in the profession. Pharmacists need to understand and guide patients clearly and accurately, and English is a fundamental tool for this, especially if English is the official language of communication in the healthcare institution.</p> <p>Understanding medical and pharmaceutical terminology: Pharmacy students need to understand medical and pharmaceutical terms and concepts in English. Understanding these terms helps them read and understand scientific studies and research in the medical field accurately.</p> <p>Reading and understanding scientific research: Pharmacists need to read and understand scientific research and articles in fields such as clinical pharmacy, pharmaceutical science, pharmaceutical chemistry, and others. Therefore, learning English is crucial for understanding these research studies and benefiting from them.</p>
9. Teaching and Learning Strategies	
Strategy	<p>Strategies for teaching English in the field of pharmacy should be designed to meet the needs of students and the specific requirements of the profession. Here are some effective strategies that can be used:</p>

Pharmacy-centered educational projects: Educational projects can be designed to include multimedia activities such as preparing research reports or giving presentations on pharmaceutical topics in English. These projects enhance speaking, writing, listening, and reading skills.

Specialized conversations: Specialized conversation sessions can be organized on specific pharmaceutical topics in English. Students can discuss various clinical cases and pharmaceutical scenarios practically and applicatively.

Utilizing technology: Technology can be used in teaching English in pharmacy through the use of smartphone applications or interactive software that enhance the four language skills.

10. Course Structure

Week	Hou rs	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
112 2 3 4 5 6 7 8 9 10 1 12 13 14 15 1	1	Communicative	Present perfect Adverbs Language lovers My closest relative Every day situations An informal email Rules for life Forest man Wordbuilding Future forms Presents tenses Conditionals Words with similar meaning Back in the real world Reprted speech	Communicative Approach	Communicative

11. Course Evaluation

Midterm exam - 25 marks
Daily surprise exams - 5 marks
End of course exam - 70 marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Reference: John and Liz Soars, New Headway Plus, Beginner Student's Book, Oxford
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name: Biochemistry II					
2. Course Code:					
3. Semester: Second / Year: Third					
4. Description Preparation Date: 25/ 2/2024					
5. Available Attendance Forms: weekly (actual)					
6. Number of Credit Hours (45) theory (30) practical / Number of Units (4)					
7. Course administrator's name (mention all, if more than one name)					
Name: Khansaa Auda Hussein		Alaa Khalil Ali			
Email: khansaa_aua_hussein@utq.edu.iq		alaa21@utq.edu.iq			
8. Course Objectives					
Course Objectives			<ol style="list-style-type: none"> 1.Course objectives 2.Understanding the basis of Biochemistry 3.Detection of many biomolecules using various biochemical methods 4.Knowledge of the fields of laboratory analysis 5.It provides students with the knowledge, skills and efforts required to work in the diagnosis of diseases through laboratory tests, hospital, pharmacy college or private care. 6.Understand other topics that cover topics related to pharmacy 7.It provides students with the knowledge, skills and efforts required to work in the diagnosis of diseases through laboratory tests. 8.Understand other topics, most notably topics related to pharmacy 		
9. Teaching and Learning Strategies					
Strategy		<p>It is interested in studying bioenergetics, the role of ATP, the importance of carbohydrates and their metabolism, the importance of fats and their metabolism Amino acids, proteins and the process of their food metabolism, plasma proteins. And the work of the endocrine system and hormones is varied. Enzymes and enzyme kinetics. Nucleotide metabolism and DNA structure ‘ The process of copying and translation.</p>			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1		Bioenergetics	Biologic oxidation. and oxidative respiratory chain	Theoretical lectures Blackboard Optical	Mid-term exams Final exams Oral exams And editorial

2	3	Carbohydrate metabolism	Glycolysis, Citric acid Cycle, Gluconeogenesis, oxidative phosphorylation. Pentose phosphate pathway, Metabolism of glycogen, Uronic acid	projector PowerPoint presentation Educational laboratories Electronic lectures
3	3	Carbohydrate metabolism		
4	3	Lipid metabolism	Biosynthesis of fatty acids. Oxidation of fatty acids Metabolism of acylglycerol and sphingolipids	
7	2	Lipid metabolism		
8	2	Lipid metabolism	Cholesterol synthesis, transport, and excretion Lipid transport and storage	
9	2	Lipid metabolism		
10	3	Lipid metabolism	Catabolism of Proteins & of Amino Acid Nitrogen	
11	3	Metabolism of amino acid and protein		
	3	Metabolism of amino acid and protein	Biosynthesis of the Nutritionally Nonessential Amino Acids Catabolism of the Carbon Skeletons of Amino Acids, Conversion of Amino Acids to Specialized Products	
	2	Metabolism of amino acid and protein		
		Macromolecules	Porphyrins & Bile Pigments	

11. Course Evaluation

Theoretical exams
Mid-course exam and final exam
Practical examination
Class Activities
Oral examination

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)


Main references (sources)

1. Biochemistry Harper's Illustrated, 27th edition. 2006
2. Biochemistry of Lippincott, 2011
3. Lehninger principles of Biochemistry, 2004

Recommended books and references (scientific journals, reports...)

Electronic References, Websites

Course Description Form

Course Name:					
Clinical Chemistry					
Course Code:					
Semester / Year:					
First \ Fifth					
Description Preparation Date:					
22 \ 2 \ 2024					
Available Attendance Forms:					
theoretical lectures and electronic lectures on class room					
Number of Credit Hours (Total) / Number of Units (Total) :					
45 theoretical hours + 30 practical hours / 3 theoretical + 1 practical					
Course administrator's name (mention all, if more than one name)					
Name and Email:					
Asst. Prof. Dr. Firas Fadhil Alwan firasalyaseen@utq.edu.iq 					
Course Objectives					
Course Objectives	<ul style="list-style-type: none"> -To provide knowledge about chemistry of human body and changes associated with different diseases. - To provide knowledge about laboratory analysis and investigations that aid in the diagnosis of diseases in order to improve healthcare provided for patients. 				
Teaching and Learning Strategies					
Strategy	performance of reports and studies that are essential in clinical chemistry field and play a crucial role in guiding and educating students about diseases, their causes, and laboratory investigations that aid in their diagnosis.				
Course Structure					
Week	Hours	Unit or subject name	Required Learning Outcomes	Learning method	Evaluation method
1	3	Disorders of carbohydrate metabolism; Hyperglycemia and Diabetes mellitus and hypoglycemia.	Study of biochemical investigations of DM and hypoglycemia	Theoretical lectures and electronic lectures on class room	sudden quiz, written and oral exams, and discussions

2	3	Disorders of lipid metabolism	Study of biochemical investigations of Dyslipidemias	theoretical lectures and electronic lectures on class room	sudden quiz, written and oral exams, and discussions
3	4	Liver function tests	Study of biochemical investigations of Hepatic disorders and gallbladder	theoretical lectures and electronic lectures on class room	sudden quiz, written and oral exams, and discussions
4	4	Kidney function tests	Study of biochemical investigations of Acute and chronic renal disorders	theoretical lectures and electronic lectures on class room	sudden quiz, written and oral exams, and discussions
5	4	Diagnostic enzymology	Use of Enzymes in clinical diagnosis	theoretical lectures and electronic lectures on class room	sudden quiz, written and oral exams, and discussions
6	8	Hypothalamus and pituitary endocrinology	Disorders of anterior pituitary hormones, disorders of adrenal gland, hypopituitarism	theoretical lectures and electronic lectures on classroom	Quizzes, written and oral exams, and discussions
7	5	Reproductive system	Disorders of gonadal functions in males and females, biochemical assessment during pregnancy	theoretical lectures and electronic lectures on classroom	Quizzes, written ,and oral exams, and discussions
8	4	Tumor markers	Laboratory biomarkers used in the diagnosis of some tumors	theoretical lectures and electronic lectures on classroom	Quizzes, written and oral exams, and discussions

9	3	Drug interaction with laboratory tests	Interferences of some drugs with the biochemical lab results	theoretical lectures and electronic lectures on classroom	Quizzes, written and oral exams, and discussions
10	3	Disorders of calcium metabolism	Biochemical tests involving Calcium and vitamin D related disorders	theoretical lectures and electronic lectures on classroom	Quizzes, written and oral exams, and discussions
11	4	Acid-base disorders	Disorders of metabolic acidosis and alkalosis	theoretical lectures and electronic lectures on classroom	sudden quiz, written and oral exams, and discussions

Course Evaluation

Mid-term exam 20 marks
 Weekly quiz 10 marks
 Final practical exam 10 marks
 Final term exam 60 marks

Learning and Teaching Resources

Required textbooks (curricular books, if any)	Clinical chemistry and metabolic medicine, Martin A. Crook, 2012
Main references (sources)	Tietz clinical chemistry and molecular diagnostics, 2012.
Recommended books and references (scientific journals, reports...)	Clinical chemistry, Kaplan, 2003
Electronic References, Websites	