جامعة البيان

Academic Program Description

Al-Bayan University

College of Health & Medical Techniques

2023 - 2024

Department of Medical Lab Techniques

March 17, 2024

University	Al-Bayan University
Faculty/Institute	College of Health and Medical Techniques
Scientific Department	Medical Lab Techniques
Academic/Professional Program Name	Academic Program Description
Final Certificate Name	Bachelor in Medical Lab Techniques
Academic System	Morning/ Evening
Description Preparation Date	17-03-2024
File Completion Date	19-03-2024

Head of Department	
Signe	
Name	Prof. Dr. Waleed Hameed
Date	17-03-2024

Scientific Associate	
Signe	
Name	Dr. Ahmed Turki Hani
Date	17-03-2024

This File has been checked by Quality Assurance and University Performance

Director of Quality Assurance and University Performance Department

Head of Quality Assurance Section	
Signe	
Name	Asst.Lect. Sarah Abdullatif
Date	17-03-2024

Approval of the Dean

Prof.Dr. Gaith Ali Jasim

1. Program Vision

Building a scientific, medical and technical institution that supports health, medical and educational institutions by preparing medical technical cadres in the fields of medical laboratories that will advance their role in developing health institutions and participating in applied medical studies on solid scientific foundations that are in line with developments in the relevant medical fields.

2. The Message of the Academic Program

Choosing the best modern scientific methods in preparing technical cadres by providing qualified faculty members to deliver knowledge, information and keeping pace with modern scientific developments in addition to providing students with scientific expertise through practical and applied training in college laboratories, and opening horizons of scientific corporations with relevant corresponding departments.

3. Program Objectives

Preparing specialized technical staff to serve various medical specialties (medicine , dentistry , pharmacy and nursing) .

Contributing to the development of society through developing health services in cooperation with health and national institutions, and preparing and implementing health programs and plans, benefiting from the expertise of specialties and Providing the necessary equipment to improve the quality of health services.

Encouraging medical and health research in the fields of medical laboratory technique and other medical specialties.

Supporting hospitals and health centers with medical staff specialized in medical laboratories techniques as well as filling the needs of health institutions, official and private hospitals, and private pathological analysis laboratories.

4. The Program Accreditation

N/A

5. Other External Influences

N/A

6. Program Structure

Course Structure	Number of Courses	Credit Units	(%)	Reviews
Institutional Requirements	14	23	12	
College Requirements	11	42	21	
Department Requirements	39	115	67	
Summer Training				Satisfied
Other				

7. Program Description

Year / Level		Course Code	Course Name	Credit Hours	
				Theoretical	Practical
1st	1st	02011101	General Chemistry1	2 Hours	1.5 Hour
		02011102	Medical Terminology	2 Hours	
		02011103	Human Biology1	2 Hours	1.5 Hour
		02011104	Laboratory Instruments1	2 Hours	1.5 Hour
		02011105	Medical Ethics	2 Hours	
		02011106	Computer applications1	2 Hours	1.5 Hour
		02011107	Human rights and Democracy	2 Hours	
		02011108	English Language	2 Hours	
	2nd	02011201	General Chemistry2	2 Hours	1.5 Hour
		02011202	Anatomy	2 Hours	1.5 Hour
		02011203	Human Biology2	2 Hours	1.5 Hour
		02011204	Laboratory Instruments2	2 Hours	1.5 Hour
		02011205	Computer applications2	2 Hours	1.5 Hour
		02011206	Arabic Language	2 Hours	
2nd	1st	02012101	Medical Bacteriology 1	2 Hours	1.5 Hour
		02012102	Biochemistry 1	2 Hours	1.5 Hour
		02012103	Human Physiology1	2 Hours	1.5 Hour
		02012104	Histology 1	2 Hours	1.5 Hour
		02012105	Molecular Biology	2 Hours	1.5 Hour
		02012106	Medical Parasitology 1	2 Hours	1.5 Hour
		02012107	Atrocities of Al ba'ath party In Iraq	2 Hours	
	2nd	02012201	Medical Bacteriology 2	2 Hours	1.5 Hour
		02012202	Biochemistry 2	2 Hours	1.5 Hour
		02012203	Human Physiology2	2 Hours	1.5 Hour
		02012204	Histology 2	2 Hours	1.5 Hour

	02012205	Medical Parasitology and Entomology	2 Hours	1.5 Hour
	02012206	Descriptive Biostatics	2 Hours	
3rd	0201314	Histopathology	2 Hours	1.5 Hour
	0201315	Hematology	2 Hours	1.5 Hour
	0201316	Virology and Mycology	2 Hours	1.5 Hour
	0201317	Clinical Chemistry	2 Hours	1.5 Hour
	0201318	Human Genetic	2 Hours	1.5 Hour
	0201319	Immunology	2 Hours	1.5 Hour
	0201320	Advanced Laboratory Techniques	2 Hours	1.5 Hour
	0201321	Computer applications	2 Hours	1.5 Hour
	0201323	English	2 Hours	
	0201322	Summer Training	Satisfied	
4th	0201423	Clinical Immunology	2 Hours	1.5 Hour
	0201424	Diagnostic microbiology	2 Hours	1.5 Hour
	0201425	Advance Clinical Biochemistry	2 Hours	1.5 Hour
	0201426	Parasitology	2 Hours	1.5 Hour
	0201427	Blood Transfusion	2 Hours	1.5 Hour
	0201428	Histopathology	2 Hours	1.5 Hour
	0201431	English	2 Hours	
	0201432	Professional Ethics	2 Hours	
	0201430	Laboratory Management	2 Hours	
	0201429	Graduation Research		

8. Expected learning outcomes of the program

➔ Knowledge

Outcome Learning 1 *The student should be able to identify all types of laboratory equipment*

Outcome Learning 2 *The student should be aware of how laboratory equipment works and how tests can be performed on it*

Outcome Learning 3 The student will know how to manage the laboratory correctly and accurately

Outcome Learning 4 The student will know how to read laboratory results correctly and without error

➔ Skills

Outcome Learning 1	*The student will be able to conduct analyzes on various devices in a professional manner*
Outcome Learning 2	*The student must be able to perform the blood drawing process smoothly and with sufficient skill*
Outcome Learning 3	*The student will be able to perform bacterial culture operations to be able to diagnose the correct bacterial type*
Outcome Learning 4	*the student will be able to perform the tissue biopsy process successfully and professionally*

➔ Values

Outcome Learning 1	*The student should be able to understand the importance of this department and what possibilities it provides to the community and medical personnel*
Outcome Learning 2	*That the student will be able to develop medical laboratories and access better methods to obtain faster and easier results for patients*
Outcome Learning 3	*The student should be able to create new laboratories with modern and rare equipment to carry out new and rare tests in the country*
Outcome Learning 4	*The student will be able to maintain laboratory equipment and plan regular maintenance at close intervals on a routine basis*

9. Teaching and Learning Strategies

Theoretical Lessons	*Laboratory training*	*Conduct laboratory experiments*
Practical Lessons	*Conduct scientific discussions with students*	*Show video clips of laboratory experiments*
Sending students to hospitals for training	*Holding seminars and conferences*	*Assistance in supervising graduation research*

10. Evaluation Methods

Oral exams	*Weekly exams*	Monthly exams
Quick quiz	Presenting Seminars	Midterm exam
Making scientific reports and essays	Practical exams	Final exam

11. Faculty Members

Titles	Specialization		Numbers	
	General	Special	Staff	Lec
Prof	*Veterinary medicine*	*Cell Physiology*		
Prof	*Biology*	*Animal Physiology*	*3*	*1*
Prof	*Biology*	*Animal Physiology*		
Prof	*General Law*	*General International Law*		
Ass. Prof	*Genetics*	*Microbial Genetics*	1	
Lecturers	*Veterinary medicine*	Parasite		
Lecturer	Biomedical engineering	Biomedical engineering	7	2
Lecturer	Biology	Microbiology/Bacteriology		
Lecturer	Chemistry Science	Medical Chemistry		

Lecturer	Medicine & Surgery	Histopathology		
Lecturer	General medicine and surgery	Kidney and urinary tract surgery		
Lecturer	Chemistry	Environmental pollution		
Lecturer	*Biotechnology*	*Biotechnology*		
Lecturer	*English language*	*Translation*		
Ass. Lecturers	Chemistry science	*Biochemistry*	10	6
Ass. Lecturer	Veterinary medicine	*Physiology*		
Ass. Lecturer	Biology	*Microbiology*		
Ass. Lecturer	Agricultural engineering sciences	*Genetics*		
Ass. Lecturer	*Biotechnology*	*Biotechnology*		
Ass. Lecturer	Chemistry science	*Chemistry*		
Ass. Lecturer	*Veterinary medicine*	*Common diseases*		
Ass. Lecturer	*Medical Microbiology*	*Molecular Virology*		
Ass. Lecturer	Chemistry science	*Inorganic chemistry*		
Ass. Lecturer	*Veterinary medicine*	*Histology and embryology*		
Ass. Lecturer	*Veterinary medicine*	Parasite		
Ass. Lecturer	*Electrical Engineering*	Computer Science/ Data Security		
Ass. Lecturer	*Biotechnology*	*Biotechnology*		
Ass. Lecturer	*Biotechnology*	*Biotechnology*		
Ass. Lecturer	*Biotechnology*	*Biotechnology*		
Ass. Lecturer	*Biology*	*Microbiology*		
Teaching Ass.	Medical Lab Techniques		*2*	
Teaching Ass.	*Biochemistry*			

Professional Development

Mentoring New Faculty Members

Guidance and directing are provided to new recruits in the Department of Industrial Kidney Techniques by engaging those concerned in training workshops and holding specialized seminars in their work, as well as development courses.

Professional Development for Faculty Members

Creating developmental sessions by involving them in teaching and then making an evaluation through a referendum by the stages they taught.

12. Admission Criteria

The target group for admission to the department of Medical Laboratory Techniques is graduates of secondary school in the scientific section only with a grade point average of no less than 70 present.

The application mechanism to study in the department will be after the announcement of the high school results and the opening of the gate for admission by the registration department at the presidency of Al Bayan university.

13. Key Sources of Information about the Program

1- The university's website and other websites

2- Prescribed scientific references, including books and magazines related to the academic curriculum

3- Lectures presented by faculty members in the department

14. Program Development Plan

The Department of Medical Laboratory Techniques intends to be a pioneer in developing new, concise and easy methods for both the patient and the Medical Lab Technician, with the presence of an experienced and professional teaching staff with high and precise scientific competence, so that it can create a generation with leadership in this field and be the first to take this step.

The Department of Medical Laboratory Techniques also aspires to be the first to develop laboratories that are rarely found in educational and academic institutions, such as immunology laboratory, genetic laboratory and stem cells laboratory, with highly capable and efficient equipment to contribute In increasing students' academic information so that they can open such laboratories after graduation from the department which the country extremely needs because of its rarity In the region.

Program Skills

Year/Level	Course Code	Course Title	Primary or Optional	Learning Outcomes Required from the Program											
				Knowledge				Skills				Values			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
1st	02011101	General Chemistry1	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02011102	Medical Terminology	Primary	✓	✓	✓		✓	✓	✓		✓	✓		
	02011103	Human Biology 1	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02011104	Laboratory Instruments1	Primary	✓	✓	✓		✓	✓	✓		✓	✓		
	02011105	Medical Ethics	Primary	✓	✓			✓	✓	✓		✓	✓	✓	
	02011106	Computer Applications1	Primary	✓	✓	✓		✓	✓	✓		✓	✓		
	02011107	Human rights and Democracy	Optional	✓	✓			✓	✓			✓	✓	✓	
	02011108	English	Optional	✓	✓			✓	✓			✓	✓		
2nd	02011201	General Chemistry 2	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02011202	Anatomy	Primary	✓	✓			✓	✓	✓		✓	✓		
	02011203	Human Biology 2	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02011204	Laboratory Instruments2	Primary	✓	✓	✓		✓	✓	✓		✓	✓		
	02011205	Computer Applications2	Primary	✓	✓	✓		✓	✓	✓		✓	✓		

		02011206	Arabic Language	Optional	✓	✓			✓	✓			✓	✓	
2nd	**1st**	02012101	Medical Bacteriology1	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012102	Biochemistry1	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012103	Human Physiology 1	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012104	Histology 1	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012105	Molecular Biology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012106	Medical Parasitology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012107	Atrocities of Al baath party In Iraq	Optional	✓								✓		
	2nd	02012201	Medical Bacteriology 2	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012202	Biochemistry2	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012203	Human Physiology 2	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012204	Histology 2	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012205	Medical Parasitology and Entomology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
		02012206	Descriptive Biostatics	Primary	✓	✓	✓		✓	✓			✓	✓	

	0201314	Histopathology	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	0201315	Hematology	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	0201316	Virology and Mycology	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	0201317	Clinical Chemistry	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3rd	0201318	Human Genetic	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	0201319	Immunology	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	0201320	Advanced Laboratory Techniques	Primary	✓	✓	✓		✓	✓		✓	✓	✓	✓	
	0201321	Computer applications	Optional	✓	✓	✓		✓	✓	✓		✓	✓		
	0201323	English	Optional	✓	✓	✓		✓	✓	✓		✓	✓		
	0201322	Summer Training	Satisfied	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	0201423	Clinical Immunology	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	0201424	Diagnostic Bacteriology	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	0201425	Advance Clinical Biochemistry	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
4th	0201426	Parasitology	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	0201427	Blood Transfusion	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	0201428	Histopathology	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

0201431	English	Optional	✓	✓	✓		✓	✓	✓		✓	✓	✓				
0201432	Professional Ethics	Optional	✓	✓	✓		✓	✓			✓	✓	✓				
0201430	Laboratory Management	Optional	✓	✓	✓		✓	✓	✓		✓	✓	✓				
0201429	Graduation Research	Primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			

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Course Description (1)

1. Course Title	**General chemistry 1**
2. Course Code	**02011101**
3. Semester/Year	**annual**
4. Description Preparation Date	**2024\3\30**
5. Available Attendance Form	**Official attendance time (morning and evenin**
6. No. of Hours (Total)	**30 hours for the theoretical aspect and 30 hou for the practical aspect**
7. No. of Credits (Total)	**4 units**
8. Course Administrator Name	**Lecturer Mohammed tawfiq**
9. E-mail	**mtawfiq@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Teaching students basic scientific concepts of general chemistry topics w focusing on chemical reactions principles.
	A2	Studying analytical chemistry, standard solutions, acid base titrations with vari techniques.
	A3	Teaching general organic chemistry topics and classifications
	A4	Teaching major application of spectroscopy in field of health techniques.
Skills	**B1**	Scientific discussion
	B2	Weekly exams
	B3	Monthly tests
	B4	Practical examinations
Values	**C1**	Participation in the classroom
	C2	Provide activities
	C3	Semester and final tests and activities
	C4	Self-learning, discussion panels

11. Teaching and Learning Strategies

1.	**Active participation in the classroom is evidence of the student's commitment and responsibility**	**4.**	**Developing the student's ability to deal with multiple tasks.**
2.	**Adherence to the specified deadline for submitting assignments and research.**	**5.**	**Active participation in the classroom is evidence of the**

			student's commitment and responsibility
3.	**Semester and final exams express commitment and cognitive and theoretical understanding.**	**6.**	**Developing the student's ability to deal with technical means**

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2 theory 2 practi.	The way out in theory The way out in practice	Introduction to chemistry Laboratory instructions, safety rule, equipment	presence	Daily, monthly and annual written exam
2	2 theory 2 practi.	The way out in theory The way out in practice	Analytical chemistry Preparation of different types of solution, percentage sol, ppm	presence	Daily, monthly and annual written exam
3	2 theory 2 practi.	The way out in theory The way out in practice	Molar mass Normal solution, molar solution, dilution	presence	Daily, monthly and annual written exam
4	2 theory 2 practi.	The way out in theory The way out in practice	Acid base theory Neutralization reaction	presence	Daily, monthly and annual written exam
5	2 theory 2 practi.	The way out in theory The way out in practice	Periodic table Redox titration	presence	Daily, monthly and annual written exam
6	2 theory 2 practi.	The way out in theory The way out in practice	Acid base titration Buffer solution preparation and pH determination	presence	Daily, monthly and annual written exam
7	2 theory 2 practi.	The way out in theory The way out in practice	Spectroscopy Identification of some common inorganic cation	presence	Daily, monthly and annual written exam
8	2 theory 2 practi.	The way out in theory The way out in practice	Review and exam Identification of some common inorganic anion	presence	Daily, monthly and annual written exam
9	2 theory 2 practi.	The way out in theory The way out in practice	General organic chemistry Determination of melting point	presence	Daily, monthly and annual written exam

10	2 theory 2 practi.	The way out in theory The way out in practice	Reactions of organic chemistry Determination of boiling point	presence	Daily, monthly and annual written exam
11	2 theory 2 practi.	The way out in theory The way out in practice	Alcohols classifications Reaction of some organic compounds	presence	Daily, monthly and annual written exam
12	2 theory 2 practi.	The way out in theory The way out in practice	Aldehydes and ketones Scheme for identification	presence	Daily, monthly and annual written exam
13	2 theory 2 practi.	The way out in theory The way out in practice	Carboxylic acids Scheme for identification of solid organic compounds	presence	Daily, monthly and annual written exam
14	2 theory 2 practi.	The way out in theory The way out in practice	Aromatics compounds Identification of alcohols	presence	Daily, monthly and annual written exam
15	2 theory 2 practi.	The way out in theory The way out in practice	Amines properties Aliphatic and aromatic carboxylic acids	presence	Daily, monthly and annual written exam

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	General Chemistry principal book
Main References (sources)	Articles
Recommended Books & References (Scientific Journals, Reports …)	Organic chemistry, Jonathan, 2022.
Websites or Electronic References	Wikipedia, research gate, Google Scholar, and many

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Course Description (2)

1. Course Title	**Medical Terminology**
2. Course Code	**02011102**
3. Semester/Year	**2023-2024**
4. Description Preparation Date	**27/3/2024**
5. Available Attendance Form	**Students' attendance**
6. No. of Hours (Total)	**2**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Dr. Ibrahim Mudhafar Sadoon**
9. E-mail	**Dr.ibrahimsadoon@gmail.com**

10. Course Objectives

Knowledge	**A1**	Introducing medical terminology concept to students
	A2	Knowing how medical terms is formed
	A3	Understanding of the formulation of medical terms
	A4	Fluency in describing patient's conditions
Skills	**B1**	build medical linguistic skills
	B2	Standardize documentation
	B3	Improve communication skills with medical staff
	B4	Ability to describe health status with patient in the common language
Values	**C1**	Promoting accuracy, safety, and efficacy in patient's care
	C2	Providing patient's with treatment plan with same common goals
	C3	
	C4	

11. Teaching and Learning Strategies

1.	Lecture based instructions	**4.**	Inquiry based instruction
2.	Technology based learning	**5.**	Summative learning
3.	Cooperative learning	**6.**	Differentiation

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2		Introduction to Medical Terminology,	Student attendance	quiz
2	2		Body organizations, & anatomical positions	Student attendance	quiz
3	2		Body regions, cavities, planes	Student attendance	Quiz
4	2		Directional terms, tissues, a membranes	Student attendance	Quiz
5	2		Cardiovascular system	Student attendance	Quiz
6	2		Digestive system	Student attendance	Quiz
7	2		Musculo-skeletal system	Student attendance	Quiz
8	2		Endocrine system	Student attendance	quiz
9	2		Respiratory system	Student attendance	Quiz
10	2		Urinary system	Student attendance	Quiz
11	2		Abdomen	Student attendance	Quiz
12	2		Blood	Student attendance	Quiz
13	2		Immune system	Student attendance	Quiz
14	2		Head & Neck	Student attendance	Quiz
15	2		Reproductive system	Student attendance	Quiz

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Collins, C. Edward: A Short Course in Medical
Main References (sources)	Collins, C. Edward: A Short Course in Medical
Recommended Books & References (Scientific Journals, Reports …)	Collins, C. Edward: A Short Course in Medical
Websites or Electronic References	

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Course Description (3)

1. Course Title	**Human Biology**
2. Course Code	02011103
3. Semester/Year	2024/2023
4. Description Preparation Date	2024/3/29
5. Available Attendance Form	**Theoretical + Practical**
6. No. of Hours (Total)	**(30) Theoretical + (30) Practical**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Asst.Prof.Riad Abdulhussien Delool**
9. E-mail	Riad.delool@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Know the properties of living organisms
	A2	Classification of living organisms
	A3	Cellular studies
	A4	Study of the genetic code
Skills	**B1**	Recognizing the basic unit of life
	B2	Learn about the cell life cycle
	B3	Identify the body systems
	B4	Identify bacteria and viruses
Values	**C1**	Studies on parts of the human body
	C2	Studies on the chemistry of life
	C3	Studies on the properties of living organisms
	C4	Study of cell divisions

11. Teaching and Learning Strategies

1.	**Attempting practical application of theoretical studies**	**4.**	**Many short-term scientific missions**
2.	**Continuously developing the curriculum**	**5.**	**More tests to develop students' level**
3.	**Continuous review of international educational systems**	**6.**	**Continuous interaction with other universities to identify differences in teaching methods**

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Cell divisions (meiosis and meiosis)	Theoretical study and practical applications	Conduct quick exams
2	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Cell divisions (meiosis and meiosis)	Theoretical study and practical applications	Conduct quick exams
3	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Cell divisions (meiosis and meiosis)	Theoretical study and practical applications	Conduct quick exams
4	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Different body systems	Theoretical study and practical applications	Conduct quick exams
5	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Different body systems	Theoretical study and practical applications	Conduct quick exams
6	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Different body systems	Theoretical study and practical application	Conduct quick exams
7	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Different body systems	Theoretical study and practical application	Conduct quick exams
8	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Cell chemistry	Theoretical study and practical application	Conduct quick exams
9	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Cell chemistry	Theoretical study and practical application	Conduct quick exams
10	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Cell organelles	Theoretical study and practical application	Conduct quick exams

11	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Cell organelles	Theoretical study and practical application	Conduct quick exams
12	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Bacteria	Theoretical study and practical application	Conduct quick exams
13	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	viruses	Theoretical study and practical application	Conduct quick exams
14	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Fungi	Theoretical study and practical application	Conduct quick exams
15	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Principles of genetics (End of first semester)	Theoretical study and practical application	Conduct quick exams

13. Course Evaluation
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Basics of human biology**
Main References (sources)	**General references**
Recommended Books & References (Scientific Journals, Reports …)	**International references and scientific journals**
Websites or Electronic References	**(Human biology) website**

جامعة البيان

Course Description (4)

1. Course Title	**Lab. instrumentation**
2. Course Code	**02011104**
3. Semester/Year	**First semester/ 2023-2024**
4. Description Preparation Date	**30/3/2024**
5. Available Attendance Form	**Face-to-face lectures**
6. No. of Hours (Total)	**30 Theoretical + 30 Practical**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Lecturer Mohammed tawfiq** **Asst. Lect. Suhaib raad qasim**
9. E-mail	**mtawfiq@albayan.edu.iq** **Suhaib.s@albayan.edu.iq**

10. Course Objectives

Knowle	**A1**	Providing students with scientific knowledge about most laboratory equipment
	A2	The student should know the correct ways to use laboratory equipment and mechanism of work of each device
Skills	**B1**	The student applies the correct use of devices according to what he has learned
	B2	Providing the student with sufficient experience to use laboratory equipment with high skill
Values	**C1**	The student wants to practice scientific and logical thinking to use any laboratory device
	C2	Tends to participate in teamwork as a unified team to succeed in his career

11. Teaching and Learning Strategies

1.	**The use of modern educational models in teaching**	**4.**	
2.	**Allocating a percentage of the grade for activities and participations**	**5.**	
3.	**Managing the lecture in a way that the student feels the importance of time**	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Students' knowledge of the subject	General introduction	Face-to-face learning	Class assessment And assignments
2	2	Teach students how to use optical microscope and the study of its parts	optical microscope	Face-to-face learning	Class assessment And assignments
3	2	supplementary	optical microscope	Face-to-face learning	Class assessment And assignments
4	2	supplementary	optical microscope	Face-to-face learning	Class assessment And assignments
5	2	Teaching students the components of the Electronic microscope and its work principle	Electron microscope	Face-to-face learning	Lecture evaluation and test
6	2	supplementary	Electron microscope	Face-to-face learning	Lecture evaluation and test
7	2	Parts, principle of action and uses of photometer and spectrometer	photometer and spectrometer	Face-to-face learning	Lecture evaluation and test
8	2	Spectrophotometer parts and principle, uses and care	spectrophotometer	Face-to-face learning	Lecture evaluation and test
9	2	overview	Separation equipment	Face-to-face learning	Lecture evaluation and test

10	2	Centrifuge parts, working principle, Types and methods care	centrifuge	Face-to-face learning	Lecture evaluation and test
11	2	supplementary	centrifuge	Face-to-face learning	Lecture evaluation and test
12	2	working principle, uses and methods of care	electrophoresis	Face-to-face learning	Lecture evaluation and test
13	2	supplementary	electrophoresis	Face-to-face learning	Lecture evaluation and test
14		Final exam			

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	1. M.T. Postek, K.S. Howard, A.H. Johnson and K.L. McMichael, Scanning Electron Microscopy: A Student's Handbook, (Ladd Research Ind., Inc Williston, VT., 1980). 2 I.M. Watt, The Principles and Practice of Electron Microscopy, (Cambridge Univ. Press. Cambridge, England, 1985). 3- C.E. Lyman, D.E. Newbury, J.I. Goldstein, D.B. Williams, A.D. Romig, J.T. Armstrong, P. Echlin, C.E. Fiori, D.C. Joy, E. Lifshin and Klaus-Ruediger Peters, Scanning Electron Microscopy, X-Ray Microanalysis and Analytical Electron Microscopy: A Laboratory Workbook, (Plenum Press. New York, N.Y., 1990). 4- Ferrier D. R. (2017). Lippincott illustrated reviews : biochemistry (Seventh). Wolters Kluwer. 5- Westermeier, R. (2014). Electrophoresis. In: Kreysa, G., Ota, Ki., Savinell, R.F. (eds) Encyclopedia of Applied Electrochemistry. Springer, New York, NY. 6- Wellsandt, T.; Stanisch, B.; Strube, J. Development of Micro Separation Technology Modules. Part 1:Liquid-Liquid Extraction. Chem. Ing. Tech. 2015,87, 1198–1206. 7- Birdwell, J.; McFarlane, J.; Hunt, R.; Luo, H.; DePaoli, D. Separation of Ionic Liquid Dispersions in CentrifugalSolvent Extraction Contactors. Sep. Sci. Technol. 2005,41, 2205–2223.
Websites or Electronic References	**Display by electronic means**

جامعة البيان

Course Description (5)

1. Course Title	**Medical Ethics**
2. Course Code	0201105
3. Semester/Year	**Semester**
4. Description Preparation Date	2024-3-29
5. Available Attendance Form	**In-person lecture**
6. No. of Hours (Total)	**30 Theoretical**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Dr. safa tawfeeq whqeeb**
9. E-mail	safa.tawfeeq@albaya.edu.iq

10. Course Objectives

Knowledge	**A1**	Provide the student with the appropriate method for dealing with patients, devices and equipment in the f of work
	A2	
	A3	
	A4	
Skills	**B1**	Teaching how to deal with patients or anyone with flexibility and avoid disagreements
	B2	
	B3	
	B4	
Values	**C1**	Participation in seminars and conferences held inside and outside the college
	C2	Motivating students to expand their thinking by making posters and scientific research
	C3	Develop skills to solve problems that hinder student understanding
	C4	Holding periodic seminars for students to exchange information, raise the level thinking, and enhance self-confidence

11. Teaching and Learning Strategies

1.	Education through pictures presentation	**4.**	
2.		**5.**	
3.		**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	**Medical Ethics**	Principles of professional ethics in stages of cultural developments	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
2	2	**Medical Ethics**	,Professional behavior, its concept Its practical applications	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
3	2	**Medical Ethics**	Types of employees and ways to deal with each type	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
4	2	**Medical Ethics**	Methods that the manager must Follow it to encourage the employee, motivate him to work, and increase his productivity	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz

					- Monthly exam.
5	2	**Medical Ethics**	Basic etiquette of the profession How to employ professional ethics from the position of guiding the individual's behavior, emotions, and ability to make the appropriate decision	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
6	2	**Medical Ethics**	Characteristics and qualities of health workers Appearance, behavior and commitment	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
7	2	**Medical Ethics**	For behavioral pattern, characteristics of behavioral pattern	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
8	2	**Medical Ethics**	Communication methods/linguistic and non-linguis their definition and types	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.

9	2	**Medical Ethics**	Exam	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
10	2	**Medical Ethics**	The art of listening and listening	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
11	2	**Medical Ethics**	Behavioral trends and tendencies Values, customs and traditions	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
12	2	**Medical Ethics**	Dealing with the patient: Receiving and dealing with the patient, maintaining professional secrets	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
13	2	**Medical Ethics**	Determine and maintain appointments and requirements on the patients needs	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic

					- The Quiz - Monthly exam.
14	2	**Medical Ethics**	Behavioral handling of medical devices and equipment	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
15	2	**Medical Ethics**	Occupational safety and prevention of work risks	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Medical Ethics**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	Any good research and good websites

جامعة البيان

Course Description (6)

1. Course Title	Computer Applications 1
2. Course Code	02011106
3. Semester/Year	1st semester / 2023-2024
4. Description Preparation Date	31/3/2024
5. Available Attendance Form	On-Site
6. No. of Hours (Total)	60 hours (30 Theoretical + 30 Practical)
7. No. of Credits (Total)	2
8. Course Administrator Name	Asst. Lect. Mustafa Mohammed Hammoodi
9. E-mail	tuhafi.1989@gmail.com

10. Course Objectives		
Knowledge	A1	Computer System Operation
	A2	Windows Operating System
	A3	
	A4	
Skills	B1	Working on Windows Operating System
	B2	
	B3	
	B4	
Values	C1	Computer System Importance
	C2	
	C3	
	C4	

11. Teaching and Learning Strategies			
1.	Interactive Lecture	4.	Documented Lecture
2.	Practical Demonstration	5.	Questionnaire Bank
3.	Practical Practice	6.	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p	Projector Slides	Computer System Basics	Visual, Auditory, and Kinesthetic	Summative
2	2th+2p	Projector Slides	Starting Windows	Visual, Auditory, and Kinesthetic	Summative
3	2th+2p	Projector Slides	Applications Windows	Visual, Auditory, and Kinesthetic	Summative
4	2th+2p	Projector Slides	Desktop and Taskbar	Visual, Auditory, and Kinesthetic	Summative
5	2th+2p	Projector Slides	Computing Sessions	Visual, Auditory, and Kinesthetic	Summative
6	2th+2p	Projector Slides	Applications Shortcuts	Visual, Auditory, and Kinesthetic	Summative
7	2th+2p	Projector Slides	Desktop Icons	Visual, Auditory, and Kinesthetic	Summative
8	2th+2p	Projector Slides	File System	Visual, Auditory, and Kinesthetic	Summative
9	2th+2p	Projector Slides	Files and Folders	Visual, Auditory, and Kinesthetic	Summative
10	2th+2p	Projector Slides	File Explorer	Visual, Auditory, and Kinesthetic	Summative
11	2th+2p	Projector Slides	Accounts and Permissions	Visual, Auditory, and Kinesthetic	Summative
12	2th+2p	Projector Slides	Date and Time	Visual, Auditory, and Kinesthetic	Summative
13	2th+2p	Projector Slides	Region and Language	Visual, Auditory, and Kinesthetic	Summative
14	2th+2p	Projector Slides	System Restore	Visual, Auditory, and Kinesthetic	Summative
15	2th+2p	Projector Slides	System Backup	Visual, Auditory, and Kinesthetic	Summative

13. Course Evaluation	
60% Theoretical 40% Practical (Lab.)	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	
Main References (sources)	Joan Lambert, Windows 10 Step by Step, 2nd edition, Microsoft Corp.
Recommended Books & References (Scientific Journals, Reports …)	Andy Rathbone, Windows 10 For Dummies
Websites or Electronic References	www.microsoft.com

جامعة البيان

Course Description (7)

1. Course Title	**Human Rights and Democracy**
2. Course Code	**02011107**
3. Semester/Year	**The first semester/first stage of study**
4. Description Preparation Date	2024/ 4/ 7
5. Available Attendance Form	**Theoretical**
6. No. of Hours (Total)	**30 hours (Theoretical)**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Prof.Dr. Hussam Hameed Husham**
9. E-mail	

10. Course Objectives

Knowledge	**A1**	Learn about human rights and justice and resist all forms of abuse and exploitation
	A2	At the international level, democracy and human rights are an important topic, which is why conferences are held The agreements were concluded to protect human rights
	A3	
	A4	
Skills	**B1**	The student will be familiar with the concepts of freedom, justice, and equality in rights and duties
	B2	Practicing peaceful social life thanks to the rule of law and equality of citizens rights and practices
	B3	
	B4	
Values	**C1**	Motivating the positive impact of applying democracy in its correct form, as applied to peoples who have practiced democracy for decades
	C2	That the human being is the ultimate goal of the ruling regimes and the sense of this through dealing with Various official institutions
	C3	
	C4	

11. Teaching and Learning Strategies

1.	**Traditional lectures using a projector**	**4.**	

2.	**Establishing dialogues with students**	**5.**	
3.		**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Cognitive and qualifying	Learn about human democracy In general	Lectures and discussions	Theoretical exams
2	2	Cognitive and qualifying	Definition of right, right and man, elements of right Pillars of truth	Lectures and discussions	Theoretical exams
3	2	Cognitive and qualifying	The difference between right and freedom, the difference between rights Human and public freedoms	Lectures and discussions	Theoretical exams
4	2	Cognitive and qualifying	Stages of human rights Development Human rights in Mesopotamia Civilization	Lectures and discussions	Theoretical exams
5	2	Cognitive and qualifying	Human rights resources International source for human rights	Lectures and discussions	Theoretical exams
6	2	Cognitive and qualifying	National Source for Human Rights	Lectures and discussions	Theoretical exams
7	2	Cognitive and qualifying	Causes of human rights violations	Lectures and discussions	Theoretical exams
8	2	Cognitive and qualifying	Mechanisms for international human rights protection	Lectures and discussions	Theoretical exams
9	2	Cognitive and qualifying	Introduction to the concept of democracy	Lectures and discussions	Theoretical exams
10	2	Cognitive and qualifying	Definition of democracy and the idea of its historical development	Lectures and discussions	Theoretical exams
11	2	Cognitive and qualifying	Democracy in Mesopotamia civilization	Lectures and discussions	Theoretical exams

			The difference between freedom a democracy		
12	2	Cognitive and qualifying	Forms and images of democracy	Lectures and discussions	Theoretical exams
13	2	Cognitive and qualifying	Popular referendum, its types, democracy Consociationalism, liberal democracy	Lectures and discussions	Theoretical exams
14	2	Cognitive and qualifying	Conditions and components of the democratic system, components Key elements of democracy	Lectures and discussions	Theoretical exams
15	2	Cognitive and qualifying	General Review	Lectures and discussions	Theoretical exams

13. Course Evaluation
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Curriculum in human rights and democracy**
Main References (sources)	**None**
Recommended Books & References (Scientific Journals, Reports …)	**Magazines and books on the concept of human rights and democracy**
Websites or Electronic References	**Visual and audio awareness programs**

جامعة البيان

Course Description (8)

1. Course Title	**English language**
2. Course Code	**02011108**
3. Semester/Year	**First semester / 2023-2024**
4. Description Preparation Date	**1-4-2024**
5. Available Attendance Form	**Presence**
6. No. of Hours (Total)	**30 Hours Annually**
7. No. of Credits (Total)	**3**
8. Course Administrator Name	**Dr. Hamida Tomas Jasim**
9. E-mail	**Sahartomas82@gmail.com**

10. Course Objectives

Knowledge	**A1**	Knowledge of specific academic subjects.
	A2	Improve written skills through practice of writing descriptions, reports and other subject specific texts
	A3	
	A4	
Skills	**B1**	Enable students to communicate more confidently and effectively in their work or study environment.
	B2	
Values	**C1**	Assigning a specific grade to the student's activity and participation in the English lesson .
	C2	Testing the student through the quarterly exam

11. Teaching and Learning Strategies

1.	**Quizzes**	**4.**	
2.	**Lectures**	**5.**	
3.	**Using Datashow to explain the lessons**	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Acquire knowledge	**Identify parts of speech in English language**	Theoretical explanation	Attendance + quize
2	2	Acquire knowledge	**Verbes and tenses**	Theoretical explanation	Attendance + quize
3	2	Acquire knowledge	**Countable and uncountable nouns**	Theoretical explanation	Attendance + quize
4	2	Acquire knowledge	**adjective and adverbs**	Theoretical explanation	Attendance + quize
5	2	Acquire knowledge	**Quiz Question+ Verb Groups**	Theoretical explanation	Attendance + quize
6	2	Acquire knowledge	**Definite and indefinite tools**	Theoretical explanation	Attendance + quize
7	2	Acquire knowledge	**Identify some common mistakes in English**	Theoretical explanation	Attendance + quize
8	2	Acquire knowledge	**Simple Past and Simple Present Verb Tenses**	Theoretical explanation	Attendance + quize
9	2	Acquire knowledge	**Simple Future + Giving Oral Presentations**	Theoretical explanation	Attendance + quize
10	2	Acquire knowledge	**Continuous past and Continuous Present Verb Tenses**	Theoretical explanation	Attendance + quize
11	2	Acquire knowledge	**Continuous Future**	Theoretical explanation	Attendance + quize
12	2	Acquire knowledge	**Exercise application**	Theoretical explanation	Attendance + quize
13	2	Acquire knowledge	**Identify some common mistakes in English**	Theoretical explanation	Attendance + quize
14	2	Acquire knowledge	**English communication + reading passages**	Theoretical explanation	Attendance + quize
15	2		**Final exam**		

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

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**New Headway Beginner**
Main References (sources)	**New headway Beginner student's Book**
Recommended Books & References (Scientific Journals, Reports …)	**New headway Beginner student's Book 5th edition 2019** **New headway Beginner teacher's Guide 5th edition 2019**
Websites or Electronic References	**https://www.academia.edu**

جامعة البيان

Course Description (1)

1. Course Title	**General chemistry 2**
2. Course Code	**02011201**
3. Semester/Year	**annual**
4. Description Preparation Date	**2024\3\30**
5. Available Attendance Form	**Official attendance time (morning and evenin**
6. No. of Hours (Total)	**60 hours for the theoretical aspect and 60 hou for the practical aspect**
7. No. of Credits (Total)	**4 units**
8. Course Administrator Name	**Lecturer Mohammed tawfiq**
9. E-mail	**mtawfiq@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Teaching students basic scientific concepts of general chemistry topics w focusing on chemical reactions principles.
	A2	Studying analytical chemistry, standard solutions, acid base titrations with vari techniques.
	A3	Teaching general organic chemistry topics and classifications
	A4	Teaching major application of spectroscopy in field of health techniques.
Skills	**B1**	Scientific discussion
	B2	Weekly exams
	B3	Monthly tests
	B4	Practical examinations
Values	**C1**	Participation in the classroom
	C2	Provide activities
	C3	Semester and final tests and activities
	C4	Self-learning, discussion panels

11. Teaching and Learning Strategies

1.	**Active participation in the classroom is evidence of the student's commitment and responsibility**	**4.**	**Developing the student's ability to deal with multiple tasks.**
2.	**Adherence to the specified deadline for submitting assignments and research.**	**5.**	**Active participation in the classroom is evidence of the student's commitment and**

			responsibility
3.	**Semester and final exams express commitment and cognitive and theoretical understanding.**	**6.**	**Developing the student's ability to deal with technical means**

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12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2 theory 2 practi.	The way out in theory The way out in practice	Carbohydrates	presence	Daily, monthly and annual written exam
2	2 theory 2 practi.	The way out in theory The way out in practice	Lipids	presence	Daily, monthly and annual written exam
3	2 theory 2 practi.	The way out in theory The way out in practice	Amino acids and proteins	presence	Daily, monthly and annual written exam
4	2 theory 2 practi.	The way out in theory The way out in practice	Review and exam	presence	Daily, monthly and annual written exam
5	2 theory 2 practi.	The way out in theory The way out in practice	Nucleotide and nucleic acid	presence	Daily, monthly and annual written exam
6	2 theory 2 practi.	The way out in theory The way out in practice	Enzymes	presence	Daily, monthly and annual written exam
7	2 theory 2 practi.	The way out in theory The way out in practice	Vitamins	presence	Daily, monthly and annual written exam
8	2 theory	The way out in theory The way out in practice	DNA	presence	Daily, monthly and annual written exam

	2 practi.				
9	2 theory 2 practi.	The way out in theory The way out in practice	RNA	presence	Daily, monthly and annual written exam
10	2 theory 2 practi.	The way out in theory The way out in practice	Enzymes reactions	presence	Daily, monthly and annual written exam
11	2 theory 2 practi.	The way out in theory The way out in practice	Reactions factors	presence	Daily, monthly and annual written exam
12	2 theory 2 practi.	The way out in theory The way out in practice	Water Soluble vitamins	presence	Daily, monthly and annual written exam
13	2 theory 2 practi.	The way out in theory The way out in practice	Fat soluble enzymes	presence	Daily, monthly and annual written exam
14	2 theory 2 practi.	The way out in theory The way out in practice	Human needs of vitamins	presence	Daily, monthly and annual written exam
15	2 theory 2 practi.	The way out in theory The way out in practice	Review	presence	Daily, monthly and annual written exam

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	General chemistry principal book
Main References (sources)	Articles
Recommended Books & References (Scientific Journals, Reports …)	Organic chemistry , Jonathan , 2022.
Websites or Electronic References	Wikipedia, research gate, google scholar, and many

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Course Description (2)

1. Course Title	**General Anatomy**
2. Course Code	**02011202**
3. Semester/Year	**2023-2024**
4. Description Preparation Date	**27/3/2024**
5. Available Attendance Form	Students' attendance system
6. No. of Hours (Total)	60 hrs. (30 Theoretical + 30 Practical)
7. No. of Credits (Total)	4
8. Course Administrator Name	Dr. Ibrahim Mudhafar Saadoon
9. E-mail	Dr.ibrahimsadoon@gmail.com

10. Course Objectives

Knowledge	**A1**	understanding of human anatomy at the macroscopic level
	A2	Acquire knowledge of systems-based and regional anatomy
	A3	Explain structures of body organs
	A4	Define the basic anatomical characteristics of the kidney and renal system
Skills	**B1**	Gain familiarity to human body and organs
	B2	Apply medical terminology knowledge
	B3	Train the eye on surface anatomy
	B4	Build a base for clinical examination and basic interventions skills
Values	**C1**	Pave the way for students to involve with patients
	C2	Appreciate human live, health and wellbeing in a scientific way
	C3	Provide the bases for future dialysis therapeutic practices
	C4	Professional interaction with staff and colleges

11. Teaching and Learning Strategies

1.	Technology based learning	**4.**	**Summative learning**
2.	**Modules lab training**	**5.**	**Response to intervention**
3.	**Cadaveric observational learning**	**6.**	**Student led teaching**

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p	Gain familiarity to human body	Introduction to anatomy, body organizations anatomical positions	Students attendance	Quiz
2	2th+2p	understanding basic body divisions	Body regions, cavities, planes and sections	Students attendance	Quiz
3	2th+2p	Understanding anatomical term	Directional terms, tissues and membranes	Students attendance	Quiz
4	2th+2p	Systematic anatomy understanding	Upper limb	Students attendance	Group task
5	2th+2p	Systematic anatomy understanding	Lower limb	Students attendance	Quiz
6	2th+2p	Systematic anatomy understanding	Thorax	Students attendance	Quiz
7	2th+2p	Systematic anatomy understanding	Abdomen	Students attendance	Quiz
8	2th+2p	Systematic anatomy understanding	Pelvis	Students attendance	Group task

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9	2th+2p	Systematic anatomy understanding	Head & Neck	Students attendance	Quiz
10	2th+2p	Systematic anatomy understanding	Musculo-skeletal system	Students attendance	Quiz
11	2th+2p	Systematic anatomy understanding	Digestive system	Students attendance	Quiz
12	2th+2p	Systematic anatomy understanding	Cardiovascular system	Students attendance	Group task
13	2th+2p	Systematic anatomy understanding	Respiratory system	Students attendance	Quiz
14	2th+2p	Systematic anatomy understanding	Urinary system	Students attendance	Quiz
15	2th+2p	Systematic anatomy understanding	Reproductive system	Students attendance	Quiz

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Netter's atlas of human anatomy**
Main References (sources)	**Netter's atlas of human anatomy**
Recommended Books & References (Scientific Journals, Reports …)	**Netter's atlas of human anatomy**
Websites or Electronic References	**Mobile free app's on human anatomy**

جامعة البيان

Course Description (3)

1. Course Title	**Human Biology**
2. Course Code	02011203
3. Semester/Year	2024/2023
4. Description Preparation Date	2024/3/29
5. Available Attendance Form	**Theoretical + Practical**
6. No. of Hours (Total)	**(30) Theoretical + (30) Practical**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Asst.Prof.Riad Abdulhussien Delool**
9. E-mail	Riad.delool@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Know the properties of living organisms
	A2	Classification of living organisms
	A3	Cellular studies
	A4	Study of the genetic code
Skills	**B1**	Recognizing the basic unit of life
	B2	Learn about the cell life cycle
	B3	Identify the body systems
	B4	Identify bacteria and viruses
Values	**C1**	Studies on parts of the human body
	C2	Studies on the chemistry of life
	C3	Studies on the properties of living organisms
	C4	Study of cell divisions

11. Teaching and Learning Strategies

1.	**Attempting practical application of theoretical studies**	**4.**	**Many short-term scientific missions**
2.	**Continuously developing the curriculum**	**5.**	**More tests to develop students' level**
3.	**Continuous review of international educational systems**	**6.**	**Continuous interaction with other universities to identify differences in teaching methods**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Harmful bacterial activities	Theoretical study and practical application	Conduct quick exams
2	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Harmful bacterial activities	Theoretical study and practical application	Conduct quick exams
3	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Algae	Theoretical study and practical application	Conduct quick exams
4	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Primitive animals	Theoretical study and practical application	Conduct quick exams
5	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	amoeba	Theoretical study and practical application	Conduct quick exams
6	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Fungi and their harmful effects	Theoretical study and practical application	Conduct quick exams
7	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Fungi and their harmful effects	Theoretical study and practical application	Conduct quick exams
8	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Yeasts	Theoretical study and practical application	Conduct quick exams
9	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Vertebrates and invertebrates	Theoretical study and practical application	Conduct quick exams
10	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Vertebrates and invertebrates	Theoretical study and practical application	Conduct quick exams

11	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	The human body's own defenses	Theoretical study and practical application	Conduct quick exams
12	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	The human body's own defenses	Theoretical study and practical application	Conduct quick exams
13	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Worms	Theoretical study and practical application	Conduct quick exams
14	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Worms	Theoretical study and practical application	Conduct quick exams
15	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Scientific steps	Theoretical study and practical application	Conduct quick exams

13. Course Evaluation
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Basics of human biology**
Main References (sources)	**General references**
Recommended Books & References (Scientific Journals, Reports …)	**International references and scientific journals**
Websites or Electronic References	**(Human biology) website**

جامعة البيان

Course Description (4)

1. Course Title	**Lab. Instrumentation 2**
2. Course Code	02011204
3. Semester/Year	**second semester/ 2023-2024**
4. Description Preparation Date	**30/3/2024**
5. Available Attendance Form	**Face-to-face lectures**
6. No. of Hours (Total)	**30 Theoretical + 30 Practical**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Lecturer Mohammed tawfiq** **Asst. Lect. Suhaib raad qasim**
9. E-mail	**mtawfiq@albayan.edu.iq** **Suhaib.s@albayan.edu.iq**

10. Course Objectives

Knowled	**A1**	Providing students with scientific knowledge about most laboratory equipment
	A2	The student should know the correct ways to use laboratory equipment and mechanism of work of each device
Skills	**B1**	The student applies the correct use of devices according to what he has learned
	B2	Providing the student with sufficient experience to use laboratory equipment with high skill
Values	**C1**	The student wants to practice scientific and logical thinking to use any laboratory device
	C2	Tends to participate in teamwork as a unified team to succeed in his career

11. Teaching and Learning Strategies

1.	**The use of modern educational models in teaching**	**4.**	
2.	**Allocating a percentage of the grade for activities and participations**	**5.**	
3.	**Managing the lecture in a way that the student feels the importance of time**	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Educating the student to provide free local work environment From dust and sterile	Microbial safety cabinet, Type of safety cabinet, Principle and uses	Face-to-face learning	Class assessment And assignments
2	2	Teach students how to use a device that maintains ideal conditions such as temperature, humidity, carbon dioxide and oxygen content in the atmosphere inside	Incubator, types, principle and uses	Face-to-face learning	Class assessment And assignments
3	2	Teaching the student how to use pipette as a tool Important medical laboratories because allows the measurement and transport of liquids with high accuracy, as well as the role the burner in facilitating the combustion process, producing many specifics chemical reactions, in addition to Sterilization of laboratory instruments	Pipettes, Bunsen burner	Face-to-face learning	Class assessment And assignments

4	2	Study of the devices used to incubate samples in water at constant temperature for a period time Long and sterilization of glass and metal equipment Used the laboratory	Water bath and dry oven	Face-to-face learning	Class assessment And assignments
5	2	Teach students a special device For sterilizing water-containing materials, which cannot be Sterilized Using dry heat	Autoclave, principle and uses, care and safety	Face-to-face learning	Lecture evaluation and test
6	2	supplementary	Autoclave, principle and uses, care and safety	Face-to-face learning	Lecture evaluation and test
7	2	Detection of bacterial and viral diseases and knowledge of the sequence of nitrogenous bases, mutations, identification Genetic identity and proof of paternity	Polymerase Chain Reaction Machine	Face-to-face learning	Lecture evaluation and test
8	2	Study of the analysis of sequences acid base sequences nuclear detect the presence of any gene mutations or Defect in the sequences	DNA sequencing machine	Face-to-face learning	Lecture evaluation and test
9	2	Used to know DNA bands	UV trans illuminator	Face-to-face learning	Lecture evaluation and test

10	2	Knowing the weights of the materials to be prepared addition to preparing the text sections to study the damage In that fabric.	Balances, microtomes And principle and uses	Face-to-face learning	Lecture evaluation and test
11	2	supplementary	supplementary	Face-to-face learning	Lecture evaluation and test
12	2	supplementary	supplementary	Face-to-face learning	Lecture evaluation and test
13		Final exam		Face-to-face learning	Lecture evaluation and test

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	1. Braybrook, Julian H. "Biocompatiblity: Assessment of Medical Devices and Materials. " Biocompatiblity: Assessment of Medical Devices and Materials, by Julian H. Braybrook (Editor), ISBN 0-471-96597-9. Wiley-VCH, December 1996. (1996): 246. 2- I.M. Watt, The Principles and Practice of Electron Microscopy, (Cambridge Univ. Press. Cambridge, England, 1985). 3- C.E. Lyman, D.E. Newbury, J.I. Goldstein, D.B. Williams, A.D. Romig, J.T. Armstrong, P. Echlin, C.E. Fiori, D.C. Joy, E. Lifshin and Klaus-Ruediger Peters, Scanning Electron Microscopy, X-Ray Microanalysis and Analytical Electron Microscopy: A Laboratory Workbook, (Plenum Press. New York, N.Y., 1990). 4- Ferrier D. R. (2017). Lippincott illustrated reviews : biochemistry (Seventh). Wolters Kluwer. 5- Westermeier, R. (2014). Electrophoresis. In: Kreysa, G., Ota, Ki., Savinell, R.F. (eds) Encyclopedia of Applied Electrochemistry. Springer, New York, NY.
Websites or Electronic References	**Display by electronic means**

جامعة البيان

Course Description (5)

1. Course Title	Computer Applications 2
2. Course Code	02011205
3. Semester/Year	2nd semester / 2023-2024
4. Description Preparation Date	1/4/2024
5. Available Attendance Form	On-Site
6. No. of Hours (Total)	60 hours (30 Theoretical + 30 Practical)
7. No. of Credits (Total)	2
8. Course Administrator Name	Asst. Lect. Mustafa Mohammed Hammoodi
9. E-mail	tuhafi.1989@gmail.com

10. Course Objectives

Knowledge	A1	MS Word Application
	A2	MS Excel Application
	A3	MS PowerPoint Application
	A4	
Skills	B1	Working on MS Word Application
	B2	Working on MS Excel Application
	B3	Working on MS PowerPoint Application
	B4	
Values	C1	Documenting Importance
	C2	Data Processing Importance
	C3	Data Presentation Importance
	C4	

11. Teaching and Learning Strategies

1.	Interactive Lecture	4.	Documented Lecture
2.	Practical Demonstration	5.	Questionnaire Bank
3.	Practical Practice	6.	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p	Projector Slides	Starting MS Word	Visual, Auditory, and Kinesthetic	Summative
2	2th+2p	Projector Slides	Writing and Formatting	Visual, Auditory, and Kinesthetic	Summative
3	2th+2p	Projector Slides	Page Layout	Visual, Auditory, and Kinesthetic	Summative
4	2th+2p	Projector Slides	Pictures and Graphics	Visual, Auditory, and Kinesthetic	Summative
5	2th+2p	Projector Slides	Tables	Visual, Auditory, and Kinesthetic	Summative
6	2th+2p	Projector Slides	Starting MS Excel	Visual, Auditory, and Kinesthetic	Summative
7	2th+2p	Projector Slides	Data	Visual, Auditory, and Kinesthetic	Summative
8	2th+2p	Projector Slides	Tables	Visual, Auditory, and Kinesthetic	Summative
9	2th+2p	Projector Slides	Formatting	Visual, Auditory, and Kinesthetic	Summative
10	2th+2p	Projector Slides	Templates	Visual, Auditory, and Kinesthetic	Summative
11	2th+2p	Projector Slides	Formulas and Functions	Visual, Auditory, and Kinesthetic	Summative
12	2th+2p	Projector Slides	Charts and Graphics	Visual, Auditory, and Kinesthetic	Summative
13	2th+2p	Projector Slides	Data Sharing	Visual, Auditory, and Kinesthetic	Summative
14	2th+2p	Projector Slides	Starting MS PowerPoint	Visual, Auditory, and Kinesthetic	Summative
15	2th+2p	Projector Slides	Presentation Slides	Visual, Auditory, and Kinesthetic	Summative

13. Course Evaluation	
60% Theoretical 40% Practical (Lab.)	
14.Learning & Teaching Resources	
Required textbooks (curricular if any)	
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	www.microsoft.com

جامعة البيان

Course Description (1)

1. Course Title	**Medical Bacteriology 1**
2. Course Code	**02012201**
3. Semester/Year	**First Semester/ 2023-2024**
4. Description Preparation Date	**30 / 3 / 2024**
5. Available Attendance Form	**Lectures (Theory , Lab Practicle)**
6. No. of Hours (Total)	**60 hours (30 Theretical + 30 Practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Lecture.Dr. Mytham Jabouri Abdull Hussein**
9. E-mail	**mytham.j@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**The student understands the meaning of medical bacteria**
	A2	**The student should know the importance of clinical diagnosis of medical bacteria**
	A3	**The student will understand how to stain bacteria using the Gram stain technique so that their appearance can be seen under an optical microscope.**
	A4	**The student should realize the importance of performing various biochemical tests that help in diagnosing bacteria**
Skills	**B1**	**The student will be able to use modern laboratory methods to count colonies and growing bacterial cells**
	B2	**The student will understand how to use modern technologies to identify bacteria and determine the optimal treatment against the bacteria**
	B3	**The student can distinguish between visual and microscopic diagnosis of bacterial cells.**
	B4	**The student can use the compound light microscope and how to use each of its parts in detail**
Values	**C1**	**The student can distinguish between the main forms of bacteria through the staining techniques used**
	C2	**The student can differentiate between ancient and modern methods for identifying the bacteria or disease-causing agent.**
	C3	**The student can explain how to read the results of sensitivity or resistance of bacteria to antibiotics.**
	C4	**The student can determine the optimal method for counting live bacterial cells growing on agricultural media.**

11. Teaching and Learning Strategies			
1.	The student can know the type of bacteria by seeing the shape and appearance of the bacterial colony.	4.	cells The student is able to choose the best method to determine the most appropriate antibiotic against bacteria
2.	The student can perform tests to diagnose each type of medical bacteria.	5.	Student groups, scientific trips, and holding workshops, seminars, and courses.
3.	The student can name bacteria by identifying the type and gender of bacteria	6.	Scientific reports, oral exams, surprise written exams, and direct questions.

جامعة البيان

12. The Structure of the Course						
Week	Hours		RLOs	Topic/Subject Name	Learning Method	Evaluation Method
	Theory	Lab				
1	2	2	Provides an introductory overview of medical bacteria	Introduction of Bacteria	Method of giving lectures Discussion method	Written tests Oral exams
2	2	2	Knowledge of sterilization and disinfection methods	Sterilization and Desinfection	Method of giving lectures Discussion method	Written tests
3	2	2	Knowledge of the structures and functions of bacterial components	Structure and function of bacterial components	Method of giving lectures Student groups	Oral exams
4	2	2	Bacteria cultivation and types of agricultural media	Culturing of bacteria and media types	Method of giving lectures The practical side	Written tests
5	2	2	Knowledge of bacterial physiology and cellular metabolism	Bacterial Physiology (Bacterial metabolism).	Method of giving lectures Discussion method	Oral exams
6	2	2	Bacterial genetics	Bacterial genetics.	E-Learning Discussion method	Written tests
7	2	2	Virulence factors of	Microbial virulence	Method of giving	Oral exams

			bacteria, pathogenicity and infection	factors and pathogenesis of bacterial infection.	lectures Discussion method	
8	2	2	Chemotherapy and antibiotic resistance	Chemotherapy and antibiotic resistance.	Method of giving lectures Discussion method	Written tests
9	2	2	Vaccination and vaccination	Vaccination.	Method of giving lectures Discussion method	Oral exams
10	2	2	Gram-positive spherical bacteria	Gram positive cocci	Method of giving lectures Discussion method	Written tests
11	2	2	Study of Staphylococcus aureus, Streptococcus streptococci and Enterococcus	Staphylococcus, Streptococcus and enterococcus.	Method of giving lectures Discussion method	Oral exams
12	2	2	Study of spore-forming Gram-positive bacillus bacteria	Gram positive spore forming bacilli	Method of giving lectures Discussion method	Written tests Oral exams
13	2	2	Conduct a bacterial sensitivity test to antibiotics	Microbial sensitivity to antibiotic.	Method of giving lectures Discussion method	Written tests Oral exams
14	2	2	Study of non-spore-forming Gram-positive bacillus bacteria	Gram positive non spore forming bacilli	Method of giving lectures Discussion method	Written tests Oral exams
15	2	2	Study of aerobic bacteria such as listeria and diphtheria	Listeria and Corynebacterium	Method of giving lectures Discussion method	Written tests Oral exams

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Foundations in Microbiology 4th Edition, Todar's Online Textbook of Bacteriology Dedication to Hans Zinsser 2005.**
Main References (sources)	**Bailey & Scott's Diagnostic Microbiology and Jawetz.**
Recommended Books & References (Scientific Journals, Reports …)	**Melnick, & Adelberg's 2019 Medical Microbiology/ Twenty-Eighth Edition. Scientific journals in the field.**
Websites or Electronic References	**Researchgate Google scholar**

جامعة البيان

Course Description (2)

1. Course Title	Biochemistry
2. Course Code	02012102
3. Semester/Year	annual
4. Description Preparation Date	2024\3\30
5. Available Attendance Form	Official attendance time (morning and evening).
6. No. of Hours (Total)	30 hours for the theoretical aspect and 30 hours for the practical aspect
7. No. of Credits (Total)	4 units
8. Course Administrator Name	Lecturer Mohammed tawfiq Assistant Lecturer Esraa Salah
9. E-mail	mtawfiq@albayan.edu.iq esraa.s@albayan.edu.iq

10. Course Objectives		
Knowledge	A1	Teaching students basic scientific concepts of Biochemistry topics with focus on clinical chemistry and metabolisms.
	A2	Studying biochemistry, metabolisms in illness and recovery
	A3	Teaching metabolisms and obesity and stress and exercises.
	A4	Teaching biochemistry of nutrition's and dietary.
Skills	B1	Scientific discussion
	B2	Weekly exams
	B3	Monthly tests
	B4	Practical examinations
Values	C1	Participation in the classroom
	C2	Provide activities

	C3	Semester and final tests and activities
	C4	Self-learning, discussion panels

11. Teaching and Learning Strategies			
1.	**Active participation in the classroom is evidence of the student's commitment and responsibility**	**4.**	**Developing the student's ability to deal with multiple tasks.**
2.	**Adherence to the specified deadline for submitting assignments and research.**	**5.**	**Active participation in the classroom is evidence of the student's commitment and responsibility**
3.	**Semester and final exams express commitment and cognitive and theoretical understanding.**	**6.**	**Developing the student's ability to deal with technical means**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2 theory 2 practi.	The way out in theory The way out in practice	-Introduction to Biochemistry -Specimen Collection [blood, urine, CSF]	Presence presence	Daily, monthly and annual written exam
2	2 theory 2 practi.	The way out in theory The way out in practice	-General Metabolisms -Specimen Collection [blood, urine, CSF]	presence	Daily, monthly and annual written exam
3	2 theory 2 practi.	The way out in theory The way out in practice	-Metabolisms in illness, recovery -Specimen Transport and Specimen Processing	presence	Daily, monthly and annual written exam
4	2 theory 2 practi.	The way out in theory The way out in practice	-Nutrition biochemistry, dietary -Specimen Transport and Specimen Processing	presence	Daily, monthly and annual written exam
5	2 theory 2 practi.	The way out in theory The way out in practice	-Biochemistry, prevention medicine -Blood collection techniques, Anticoagulant, Separation of serum	presence	Daily, monthly and annual written exam
6	2 theory 2 practi.	The way out in theory The way out in practice	-Biochemical bases in disease -Principle of instrumentation [photometer, colorimetry and spectrophotometry]	presence	Daily, monthly and annual written exam
7	2	The way out in theory	-Biochemistry at water pH	presence	Daily, monthly and

	theory 2 practi.	The way out in practice	-Carbohydrates tests		annual written exam
8	2 theory 2 practi.	The way out in theory The way out in practice	-Review and exam -Molish test, Iodin test, Benedicts test and Barfoed test	presence	Daily, monthly and annual written exam
9	2 theory 2 practi.	The way out in theory The way out in practice	-Biochemistry and electrolytes -Seliwanoffs test, Osazone test, Athrone and Dinitrosalicylic acid method	presence	Daily, monthly and annual written exam
10	2 theory 2 practi.	The way out in theory The way out in practice	-Metabolism of carbohydrates -Roes method, Fehling test, Somogyi-Nelson method and Mucic acid test	presence	Daily, monthly and annual written exam
11	2 theory 2 practi.	The way out in theory The way out in practice	-Metabolisms pathways -Amino acid tests	presence	Daily, monthly and annual written exam
12	2 theory 2 practi.	The way out in theory The way out in practice	-ATP synthesis -Ninhydrin test, Isatin test and Xanthoprotic test	presence	Daily, monthly and annual written exam
13	2 theory 2 practi.	The way out in theory The way out in practice	-Lipids biosynthesis -Paulys diazo test, Sakaguchi test Millon test	presence	Daily, monthly and annual written exam
14	2 theory 2 practi.	The way out in theory The way out in practice	-Lipids oxidations -Paulys diazo test, Sakaguchi test Millon test	presence	Daily, monthly and annual written exam
15	2 theory 2 practi.	The way out in theory The way out in practice	-Metabolisms of glycerol -Hopkins-Cole test, Lead acetate test	presence	Daily, monthly and annual written exam

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	General biochemistry Geoffrey Beckett Text book of biochemistry, 2016
Main References (sources)	Articles
Recommended Books & References (Scientific Journals, Reports ...)	Hepers illustrated. Biochemistry, medical book.
Websites or Electronic References	Wikipedia, research gate, google scholar, and many

جامعة البيان

Course Description (3)

1. Course Title	**Human physiology 1**
2. Course Code	**02012103**
3. Semester/Year	**Second semester \2023-2024**
4. Description Preparation Date	**29-3-2024**
5. Available Attendance Form	**attendance**
6. No. of Hours (Total)	**60 (30 Theoretical + 30 Practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**prof.dr.shallal murad**
9. E-mail	**Shallal.murad@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	The student will be familiar with the functions of the human body's organs and how to perform laboratory tests for that
	A2	
	A3	
	A4	
Skills	**B1**	Teaching the function of organs in the human body and the mechanism of each function Teaching the student how to perform laboratory tests and how to read ...the results. These tests help Maintaining human health
	B2	
	B3	
	B4	
Values	**C1**	Encouraging the student to spread health culture and awareness about the human body and how to care for and maintain it Every function of every organ
	C2	
	C3	
	C4	

11. Teaching and Learning Strategies

1.	**data show presentation**	**4.**	
2.	**lab work**	**5.**	

3.		**6.**	

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12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2th+2p	Human physiology 2	General Introduction to Physiology	theoretical and practical	exam and quiz and report and home work
2	2th+2p	Human physiology 2	Cell Physiology: General Functions, Membrane Transport/lab: Introduction: Characteristics of good technician.	theoretical and practical	exam and quiz and report and home work
3	2th+2p	Human physiology 2	How To avoid contamination of Specimen Technician	theoretical and practical	exam and quiz and report and home work
4	2th+2p	Human physiology 2	General Idea about Body fluids: Ty Composition, and Functions. Unit Measurement, Conversion and Conversion factor/ lab: Specimen: Type, Collection, and Preparation.	theoretical and practical	exam and quiz and report and home work
5	2th+2p	Human physiology 2	Specimen identification	theoretical and practical	exam and quiz and report and home work
6	2th+2p	Human physiology 2	Lab Reports: Types and righting.	theoretical and practical	exam and quiz and report and home work
7	2th+2p	Human physiology 2	Blood: Composition, Specific Functions each Compartment. Plasma and Se Differences and Separation/ lab: Basic s for drawing a blood specimen venipuncture. Complications of venipuncture.	theoretical and practical	exam and quiz and report and home work
8	2th+2p	Human physiology 2	Blood collection by skin punctures (Capillary Blood).	theoretical and practical	exam and quiz and report and home work
9	2th+2p	Human physiology 2	Types of Syringes used in blood collection	theoretical and practical	exam and quiz and report and home work
10	2th+2p	Human physiology 2	RBCs: Definition, Structure, and Nor Value; Hb Definition, Structure, and Nor Value; Blood Groups/ lab: Repeat: Blood drawing.	theoretical and practical	exam and quiz and report and home work
11	2th+2p	Human physiology 2	Erythropoiesis, Homeostasis, Death Disposal/lab: Blood sample Hemoly	theoretical and practical	exam and quiz and report and home work

			Reasons and how to avoid.		
12	2th+2p	Human physiology 2	Blood Coagulants: Types and Uses. (ED Citrate, Oxalate, Heparin, sodium fluoride.	theoretical and practical	exam and quiz and report and home work
13	2th+2p	Human physiology 2	White Blood Cells: Classification, Spe Function,Normal Value/ lab: Specimen rejection: Reason and How avoid.	theoretical and practical	exam and quiz and report and home work
14	2th+2p	Human physiology 2	Type of anticoagulant used and their effec Blood Cell Morphology.	theoretical and practical	exam and quiz and report and home work
15	2th+2p	Human physiology 2	Platelet: Definition, Function, Normal Va Thrombopoiesis and Hemostasis/lab: Blood separation to Cells, plasma, and seru	theoretical and practical	exam and quiz and report and home work

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**text books**
Main References (sources)	Ganong of medical physiology
Recommended Books & References (Scientific Journals, Reports …)	Guyton and hall textbook of medical physiology
Websites or Electronic References	Vander renal physiology

جامعة البيان

Course Description (4)

1. Course Title	Histology 1
2. Course Code	02012104
3. Semester/Year	**Year**
4. Description Preparation Date	**2024-4-1**
5. Available Attendance Form	**Lectures and laboratory**
6. No. of Hours (Total)	**30 hours (theory)** **30 hours (practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Dr. Ahmed Turki Hani**
9. E-mail	**ahmedt@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Provide the students with basic knowledge about the structure of the human cells, tissues and extracellular matrices surrounding them: epithelium, connective tissues, including blood, bone cartilage, muscles, and nerves.
	A2	Learn the student the microscopic structure of the different human tissues.
	A3	Facilitate the integration of Histology with gross Anatomy, Physiology and Biochemistry.
	A4	Acquire student the skills of using the microscope and identifying the normal structures.
Skills	**B1**	Describe the normal ultra-structure of the cell.
	B2	Describe the organization and components of the human body.
	B3	Correlate between the predominance of a cell organelle and the function of the cell.
	B4	Correlate between histological structure & function of different organs of all systems.
Values	**C1**	Describe the normal ultra-structure of the cell.
	C2	Describe the organization and components of the human body.
	C3	Correlate between the predominance of a cell organelle and the function of the cell.
	C4	Correlate between histological structure & function of different organs of all systems.

11. Teaching and Learning Strategies

1.	Use professionally the light microscope to obtain information from histological slides in the laboratory.	**4.**	
2.	Identify and select various types of special stains for various tissues.	**5.**	
3.	Work constructively in a group sharing his/her colleagues in the resources available.	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p		Introduction and overview methods used in histology, Classification Histology, Tissue preparatior	Data show and white board	Quiz/homework
2	2th+2p		Overview of Cell structure types	Data show and white board	Quiz/homework
3	2th+2p		Tissues: Concept and classifications of primary tissues	Data show and white board	Quiz/homework
4	2th+2p		Epithelial tissue: Simple Ep. Compound Ep. T.	Data show and white board	Quiz/homework
5	2th+2p		The glandular Tissues (The Glands)	Data show and white board	Quiz/homework
6	2th+2p		Connective and Supportive Tissue: Embryonic and adult C.T.	Data show and white board	Quiz/homework
7	2th+2p		Connective Tissue proper (General C.T.)	Data show and white board	Quiz/homework
8	2th+2p		Cartilage, Histogenesis, Grow and repair of cartilage	Data show and white board	Quiz/homework
9	2th+2p		Bone & Histogenesis of Bone	Data show and white board	Quiz/homework
10	2th+2p		The Blood	Data show and	Quiz/homework

				white board	
11	2th+2p		The haemopoietic organ (bone marrow), Formation blood cells.	Data show and white board	Quiz/homework
12	2th+2p		Muscular tissue	Data show and white board	Quiz/homework
13	2th+2p		Nervous tissue: Overview nervous system (CNS & PNS)	Data show and white board	Quiz/homework
14	2th+2p		Nervous system: the Nerve cells (neurons) and their classification	Data show and white board	Quiz/homework
15	2th+2p		Supporting cells of nervous system	Data show and white board	Quiz/homework

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (5)

1. Course Title	**Molecular biology**
2. Course Code	**02012105**
3. Semester/Year	**First semester/ 2023-2024**
4. Description Preparation Date	**30/3/2024**
5. Available Attendance Form	**Face-to-face lectures**
6. No. of Hours (Total)	**26**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Suhaib raad qasim**
9. E-mail	**Suhaib.s@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	The student should know the interactions between molecules such as DNA, RNA and protein.
	A2	
Skills	**B1**	The student has the logical thinking skills to study the living cell at the molecular level
Values	**C1**	The student's discovery of what is happening in his environment and the necessary knowledge in the fields of agriculture, medicine and genetic engineering

11. Teaching and Learning Strategies

1.	**The use of modern educational models in teaching**	**4.**	
2.	**Allocating a percentage of the grade for activities and participations**	**5.**	
3.	**Managing the lecture in a way that the student feels the importance of time**	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Introducing students to molecular biology	Molecular biology	Face-to-face learning	Class assessment And assignments
2	2	Teaching the student all materials and tools And the devices to be used in the laboratory Molecular biology	Laboratory Instruments Materials	Face-to-face learning	Class assessment And assignments
3	2	supplementary	Laboratory Instruments Materials	Face-to-face learning	Class assessment And assignments
4	2	Introducing students to the approved methods In the preparation of solutions used in Biological Laboratories	Preparation solutions	Face-to-face learning	Class assessment And assignments
5	2	supplementary	Preparation solutions	Face-to-face learning	Lecture evaluation and test
6	2	Teaching the student physical and chemical methods To extract DNA from any kind of Cells	DNA Extraction	Face-to-face learning	Lecture evaluation and test
7	2	supplementary	DNA Extraction	Face-to-face learning	Lecture evaluation and test

8	2	Study of methods of extracting plasmids from Bacterial cells	Plasmids extraction	Face-to-face learning	Lecture evaluation and test
9	2	supplementary	Plasmids extraction	Face-to-face learning	Lecture evaluation and test
10	2	working principle, uses and methods of care	electrophoresis	Face-to-face learning	Lecture evaluation and test
11	2	supplementary	electrophoresis	Face-to-face learning	Lecture evaluation and test
12	2	Introducing the student to the ways to multiply the DNA to facilitate the study grammar Nitrogen	Polymerase Chain Reaction	Face-to-face learning	Lecture evaluation and test
13	2	supplementary	Polymerase Chain Reaction	Face-to-face learning	Lecture evaluation and test
14		Final exam			

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	1- Clark DP, Pazdernik NJ. *Molecular Biology, Polymerase Chain Reaction.* 2nd ed. United States of America (USA): Elsevier BV; 2013. pp. 163–93. Chap. 6. 2- Lorenz TC. Polymerase chain reaction: Basic protocol plus troubleshooting and optimizing strategies. *J Vis Exp.* 2012;63:e3998. 3- Ratani SS, Siletzky RM, Dutta V, Yildirim S, Osborne JA, Lin W, Hitchins AD, Ward TJ, Kathariou S (2012) Heavy metal and disinfectant resistance of Listeria monocytogenes from foods and food processing plants. Appl Environ Microbiol 78:6938–6945 4- Harrison E, Brockhurst MA (2012) Plasmid-mediated horizontal gene transfer is a coevolutionary process. Trends Microbiol 20:262–267 5- Westermeier, R. (2014). Electrophoresis. In: Kreysa, G., Ota, Ki., Savinell, R.F. (eds) Encyclopedia of Applied Electrochemistry. Springer, New York, NY. 6- Jawdat N, Adnan F. Gaaib, et al Simple salting-out method for genomic DNA extraction from whole Blood. Tikrit Journal of Pure Science 2011;16(2 SRC - GoogleScholar):1813-662.
Websites or Electronic References	**Display by electronic means**

جامعة البيان

Course Description (6)

1. Course Title	Medical Parasitology 1
2. Course Code	02012106
3. Semester/Year	**Semester**
4. Description Preparation Date	2024-3-29
5. Available Attendance Form	**In-person lecture+ online**
6. No. of Hours (Total)	**60 (30 Theoretical + 30 Practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Dr. safa tawfeeq whqeeb**
9. E-mail	safa.tawfeeq@albaya.edu.iq

10. Course Objectives

Knowledge	**A1**	Knowledge of the parasite's appearance, life cycle, and pathogenesis.
	A2	Diagnose all parasites of medical importance.
	A3	Identify the epidemiology of parasites with special reference to those endemic to Iraq.
	A4	Control and prevent the spread of disease
Skills	**B1**	Teaching the use of a microscope and diagnosing the stages of parasites
	B2	Teaching modern techniques in diagnosis
	B3	
	B4	
Values	**C1**	Participation in seminars and conferences held inside and outside the college
	C2	Motivating students to expand their thinking by making posters and scientific research
	C3	Develop skills to solve problems that hinder student understanding
	C4	Holding periodic seminars for students to exchange information, raise the level thinking, and enhance self-confidence

11. Teaching and Learning Strategies

1.	Education through pictures presentation	**4.**	
2.	Education through video presentation	**5.**	
3.	Education via online	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p	Medical Parasitology 1	General Introduction: Introduction; Paras Host; Zoonosis; Host-parasite Relationsh Life Cycle of Parasites; Sources of Infect Modes of Infection; Pathogenesis; Immunit Parasitic Infection; Laboratory Diagnosis	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
2	2th+2p	Medical Parasitology 1	Protozoa General Features ; Structur Reproduction ; Life Cycle ; Classificatio Protozoa ; Phylum Sarcomastigoph Phylum Apicomplexa; Phylum Cilioph Phylum Microspora	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
3	2th+2p	Medical Parasitology 1	Sacodina, (Amoebae) Entamoeba histolytica; History and Distribut Morphology; Life Cycle; Pathogenesis Clinical Features; Extraintestinal Amoebia Laboratory Diagnosis; Immunity; Treatme	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
4	2th+2p	Medical Parasitology 1	Entamoeba Coli , Entamoeba Gingiv Endolimax nana 24;; Pathogenic FreeLi Amoebae; naegleria Fowleri; History Distribution 26; Morphology; Life Cycle; Pathogenicity and Clinical Features; Laboratory Diagnosis; Treatment	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz

					- Monthly exam.
5	2th+2p	Medical Parasitology 1	Intestinal, Oral, and Genital Flagellates Giardia Lamblia; History and Distribut Habitat; Morphology; Life Cycle; Pathogenicity Clinical Features; Laboratory Diagnosis; Treatment	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
6	2th+2p	Medical Parasitology 1	Genus Trichomonas. T. vaginalis/ uroge flagellate. T. hominis T. tenax Biology , medical importance and Lab. Diagnosis of each species	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
7	2th+2p	Medical Parasitology 1	Heamo- flagellates(blood& tissue flagellates),general characters. Developmental stages in the vertebrate & invertebrate host	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
8	2th+2p	Medical Parasitology 1	. Genus leishmania ,species of leishma biology, vector, medical importance eachspecies, types of leishmaiasis , life cycle ,Lab. Diagnosis, incloding immunological tests	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
9	2th+2p	Medical Parasitology 1	Genus Trypanosoma, species of trypanosc biology , vector, medical importance of each species, forms of parasite, life cycle,Lab. Diagnosis	Theoretical and practical	-Through questions during the lecture

					-The student participat in explaining a topic - The Quiz - Monthly exam.
10	2th+2p	Medical Parasitology 1	Ciliophora: Blantidiumcoli ,Biology , mec importance, Lab. Diagnosis. Apicomp General charcter.Genus Toxoplasma.,T.go ,Biology, medical lmportance,acquired congenital toxoplasosis. Life cycle, role domesticate animals in the transmission of disease. Lab. Diagnosis.	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
11	2th+2p	Medical Parasitology 1	Genus plasmodium. Introduction to malarial parasites, malarial paroxysm, general life cycle of the plasmodium , species of plasmodium.	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
12	2th+2p	Medical Parasitology 1	P.falciparum, P. vivax, Disease, pathology, medical importance, distribution, main differences during life cycle.	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
13	2th+2p	Medical Parasitology 1	, P ovale, P. malarae Disease, pathology, medical importance, distribution, main differences during life cycle.	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.

14	2th+2p	Medical Parasitology 1	General discussion on malarial para ,epidemiology, methods of diagnosis. Tim take clinical samples. Blood films	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
15	2th+2p	Medical Parasitology 1	Isopora, pathology, mec importance,Lab.Dianosis. Sarcocystis spec pathology , medical importance,Lab diagn 14 Cryptosporidiadse Genus cryptosporidi species belong the genus, biology, pathol epidemiology,Lab.diagnosis.	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Paniker's Textbook of Medical Parasitology**
Main References (sources)	**Paniker's Textbook of Medical Parasitology**
Recommended Books & References (Scientific Journals, Reports …)	**Evolutionary Parasitology** Textbook of Medical Parasitology
Websites or Electronic References	Any good research and good websites

جامعة البيان

Course Description (1)

1. Course Title	**Medical Bacteriology 2**
2. Course Code	**02012201**
3. Semester/Year	**Second Semester/ 2023-2024**
4. Description Preparation Date	**30 / 3 / 2024**
5. Available Attendance Form	**Lectures (Theory , Lab Practicle)**
6. No. of Hours (Total)	**60 hours (30 Theoretical + 30 Practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Lecture.Dr. Mytham Jabouri Abdull Hussein**
9. E-mail	**mytham.j@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**The student understands the meaning of medical bacteria**
	A2	**The student should know the importance of clinical diagnosis of medical bacteria**
	A3	**The student will distinguish between different types of bacteria based on different diagnostic methods**
	A4	**The student learns how to grow bacteria on different agricultural media using cultivation techniques**
Skills	**B1**	**The student will understand how to stain bacteria using the Gram stain technique so that their appearance can be seen under an optical microscope**
	B2	**The student should realize the importance of performing various biochemical tests that help in diagnosing bacteria**
	B3	**The student will understand how to test the sensitivity of bacteria to antibiotics and choose the best treatment for bacteria**
	B4	**The student will learn the most important tests used to determine the minimum concentration of antibiotics to inhibit bacterial growth**
Values	**C1**	**The student will be able to use modern laboratory methods to count colonies and growing bacterial cells**
	C2	**The student will understand how to use modern technologies to identify bacteria and determine the optimal treatment against the bacteria**
	C3	**The student understands how to isolate bacteria individually and pure**
	C4	**The student should perform diagnostic tests and antibiotic sensitivity tests against bacteria**

11. Teaching and Learning Strategies			
1.	The student can distinguish between visual and microscopic diagnosis of bacterial	4.	cells The student is able to choose the best method to determine the most appropriate antibiotic against bacteria
2.	The student can differentiate between ancient and modern methods for identifying the bacteria or agent causing the disease	5.	Student groups, scientific trips, and holding workshops, seminars, and courses.
3.	The student can perform tests to diagnose each type of medical bacteria	6.	Scientific reports, oral exams, surprise written exams, and direct questions.

جامعة البيان

12. The Structure of the Course						
Week	**Hours**		**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
	Theory	**Lab**				
1	2	2	Provides an overview of *Neisseria*	*Neisseria*	Method of giving lectures Discussion method	Written tests Oral exams
2	2	2	Provides an overview of *Escherichia coli*	*Escherichia coli*	Method of giving lectures Discussion method	Written tests
3	2	2	Provides an overview of *Klebsiella*	*Klebsiella*	Method of giving lectures Student groups	Oral exams
4	2	2	Provides an overview of *Pseudomonads and Acinetobacter*	*Pseudomonads and Acinetobacter*	Method of giving lectures The practical side	Written tests
5	2	2	Provides an overview of *Shigella and Salmonella*	*Shigella and Salmonella*	Method of giving lectures Discussion method	Oral exams
6	2	2	Provides an overview of *Yersinia*	*Yersinia*	E-Learning Discussion method	Written tests
7	2	2	Provides an overview of *Vibrio*	*Vibrio*	Method of giving lectures Discussion method	Oral exams
8	2	2	Provides an	*Campylobacter*	Method of giving	Written tests

			overview of *Campylobacter*		**lectures Discussion method**	
9	**2**	**2**	**Provides an overview of *Helicobacter pylori***	***Helicobacter pylori***	**Method of giving lectures Discussion method**	**Oral exams**
10	**2**	**2**	**Provides an overview of *Haemophilus***	***Haemophilus***	**Method of giving lectures Discussion method**	**Written tests**
11	**2**	**2**	**Provides an overview of *Bordetella and Brucella***	***Bordetella and Brucella***	**Method of giving lectures Discussion method**	**Oral exams**
12	**2**	**2**	**Provides an overview of *Chlamydia***	***Chlamydia***	**Method of giving lectures Discussion method**	**Written tests Oral exams**
13	**2**	**2**	**Provides an overview of *Spirochetes***	***Spirochetes***	**Method of giving lectures Discussion method**	**Written tests Oral exams**
14	**2**	**2**	**Provides an overview of *Mycobacterium***	***Mycobacterium***	**Method of giving lectures Discussion method**	**Written tests Oral exams**
15	**2**	**2**	**Provides an overview of *Mycoplasma and Rickettsia***	***Mycoplasma and Rickettsia***	**Method of giving lectures Discussion method**	**Written tests Oral exams**

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Foundations in Microbiology 4th Edition, Todar's Online Textbook of Bacteriology Dedication to Hans Zinsser 2005.**
Main References (sources)	**Bailey & Scott's Diagnostic Microbiology and Jawetz.**
Recommended Books & References (Scientific Journals, Reports …)	**Melnick, & Adelberg's 2019 Medical Microbiology/ Twenty-Eighth Edition.** **Scientific journals in the field.**
Websites or Electronic References	**Researchgate** **Google scholar**

جامعة البيان

Course Description (2)

1. Course Title	Biochemistry
2. Course Code	02012202
3. Semester/Year	annual
4. Description Preparation Date	2024\3\30
5. Available Attendance Form	Official attendance time (morning and evening).
6. No. of Hours (Total)	30 hours for the theoretical aspect and 30 hours for the practical aspect
7. No. of Credits (Total)	4 units
8. Course Administrator Name	Lecturer Mohammed tawfiq Assistant Lecturer Esraa Salah
9. E-mail	mtawfiq@albayan.edu.iq esraa.s@albayan.edu.iq

10. Course Objectives		
Knowledge	A1	Teaching students basic scientific concepts of Biochemistry topics with focus on clinical chemistry and metabolisms.
	A2	Studying biochemistry, metabolisms in illness and recovery
	A3	Teaching metabolisms and obesity and stress and exercises.
	A4	Teaching biochemistry of nutrition's and dietary.
Skills	B1	Scientific discussion
	B2	Weekly exams
	B3	Monthly tests
	B4	Practical examinations
Values	C1	Participation in the classroom
	C2	Provide activities

	C3	Semester and final tests and activities
	C4	Self-learning, discussion panels

11. Teaching and Learning Strategies			
1.	**Active participation in the classroom is evidence of the student's commitment and responsibility**	**4.**	**Developing the student's ability to deal with multiple tasks.**
2.	**Adherence to the specified deadline for submitting assignments and research.**	**5.**	**Active participation in the classroom is evidence of the student's commitment and responsibility**
3.	**Semester and final exams express commitment and cognitive and theoretical understanding.**	**6.**	**Developing the student's ability to deal with technical means**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2 theory	The way out in theory The way out in practice	-Introduction to Hormones -Gerngross test and Amino acids Titrati	presence	Daily, monthly and annual written exam
	2 practi.		Curve		
2	2 theory 2 practi.	The way out in theory The way out in practice	-Classification and functions -Lipids tests	presence	Daily, monthly and annual written exam
3	2 theory 2 practi.	The way out in theory The way out in practice	-Receptors and degradations -Ethanol emulsion test, Acrolein, sudan	presence	Daily, monthly and annual written exam
4	2 theory 2 practi.	The way out in theory The way out in practice	-Proteins structures , functions -Acid Value, peroxide Value and Saponification Value	presence	Daily, monthly and annual written exam
5	2 theory 2 practi.	The way out in theory The way out in practice	-Myoglobin and hemoglobin -Iodine Value and Libermann-Burchard Method	presence	Daily, monthly and annual written exam
6	2 theory 2 practi.	The way out in theory The way out in practice	-Metabolism of purine/ pyrimidine -Nucleic acids	presence	Daily, monthly and annual written exam
7	2 theory 2 practi.	The way out in theory The way out in practice	-Vitamins types and reactions --Diphenylamine Method, Fiske-Subbar Method	presence	Daily, monthly and annual written exam
8	2 theory 2 practi.	The way out in theory The way out in practice	-Introduction to Minerals -Bials orcinol Method and Quantitaion o DNA by A260 nm	presence	Daily, monthly and annual written exam

9	2 theory 2 practi.	The way out in theory The way out in practice	-Absorption and sources - Proteins	presence	Daily, monthly and annual written exam
10	2 theory 2 practi.	The way out in theory The way out in practice	-Metabolism of minerals -Biuret protein assay and Folin-Lowrys Method	presence	Daily, monthly and annual written exam
11	2 theory 2 practi.	The way out in theory The way out in practice	-Metabolism of nucleotides -Bradford Method and Microkjeldal Method	presence	Daily, monthly and annual written exam
12	2 theory 2 practi.	The way out in theory The way out in practice	-Purine nucleotide -Isoelectric Point (PI)	presence	Daily, monthly and annual written exam
13	2 theory 2 practi.	The way out in theory The way out in practice	-Salvage pathway of purine -Enzymology	presence	Daily, monthly and annual written exam
14	2 theory 2 practi.	The way out in theory The way out in practice	-Pyrimidine metabolism -Alkaline phosphatase assay and Acid phosphatase assay	presence	Daily, monthly and annual written exam
15	2 theory 2 practi.	The way out in theory The way out in practice	-Review -β-amylase assay and Urease assay	presence	Daily, monthly and annual written exam

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	General biochemistry Geoffrey Beckett Text book of biochemistry, 2016
Main References (sources)	Articles
Recommended Books & References (Scientific Journals, Reports ...)	Hepers illustrated. Biochemistry, medical book.
Websites or Electronic References	Wikipedia, research gate, google scholar, and many

جامعة البيان

Course Description (3)

1. Course Title	**Human physiology 2**
2. Course Code	**02012203**
3. Semester/Year	**Second semester \2023-2024**
4. Description Preparation Date	**29-3-2024**
5. Available Attendance Form	**attendance**
6. No. of Hours (Total)	**60 (30 Theoretical + 30 Practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**prof.dr.shallal murad**
9. E-mail	**Shallal.murad@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	The student will be familiar with the functions of the human body's organs and how to perform laboratory tests for that
	A2	
	A3	
	A4	
Skills	**B1**	Teaching the function of organs in the human body and the mechanism of each function Teaching the student how to perform laboratory tests and how to read ...the results. These tests help Maintaining human health
	B2	
	B3	
	B4	
Values	**C1**	Encouraging the student to spread health culture and awareness about the human body and how to care for and maintain it Every function of every organ
	C2	
	C3	
	C4	

11. Teaching and Learning Strategies

1.	**data show presentation**	**4.**	
2.	**lab work**	**5.**	

3.		**6.**	

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2th+2p	Human physiology 2	Digestive Physiology: GIT: Part General Function, Food Movement, and Control. Swallowing Reflex/ lab: Urine Sample: Importance, Method of Collection, Preparation, Transport and Storage Physical Examination of Urine Sample	theoretical and practical	exam and quiz and report and home work
2	2th+2p	Human physiology 2	Digestive Physiology: GIT Chem Digestion, Absorption, and Control. Defecation Reflex/ lab: Microscopic Examination of Urine: identification of Epithelial Cells, Blood Cells, crystals, casts	theoretical and practical	exam and quiz and report and home work
3	2th+2p	Human physiology 2	Digestive Physiology: Accessory Organs: Secretion and Their Role Digestion. Secretion Control	theoretical and practical	exam and quiz and report and home work
4	2th+2p	Human physiology 2	Urinary Physiology: General Functions of US. Urine: Definition and Normal Constitute. Physical and Chemical Property of Urine./ lab: Repeat	theoretical and practical	exam and quiz and report and home work
5	2th+2p	Human physiology 2	Role of Kidney in Urine Formation Maintenance of Body Fluids and The Role In Acid-Base Balance/ lab: Chemical Examination of Urine	theoretical and practical	exam and quiz and report and home work
6	2th+2p	Human physiology 2	ıary Tract: Parts and Function. Urine .Hemodynamic and Control Normal Urine Daily Volume and Fa Affecting/ lab: repeat	theoretical and practical	exam and quiz and report and home work
7	2th+2p	Human physiology 2	ocrine Physiology: Endocrine Glands .Types and Secretion Hormone: Types, Normal Value, Function Control of Secretion/ lab	theoretical and practical	exam and quiz and report and home work
8	2th+2p	Human physiology 2	:Reproductive Physiology	theoretical and practical	exam and quiz and report and

			e Sex Physiology:Function of Genital .Organs Male Sex Hormones: Normal Value, Production, Control, and Their Role in Reproduction./lab: : Semen Analysis: Type of Collection & Physical Examination		home work
9	2th+2p	Human physiology 2	male Sex Physiology: Function of Genital .Organs Normal Value of Female Sex Hormone, .Production, and Control Female Cycle, Pregnancy, Parturition, ar Lactation: Hormonal Fluctuation and Control.	theoretical and practical	exam and quiz and report and home work
10	2th+2p	Human physiology 2	Muscles Physiology: Types and Functi Generation of Action Potential, Contract and Sliding-Filament theory.	theoretical and practical	exam and quiz and report and home work
11	2th+2p	Human physiology 2	Nervous Physiology: Neuroglia: Definition, .Types, and Function .Neurons: Definition, Types, and Function CSF: Composition, Function, and Clinical Importance	theoretical and practical	exam and quiz and report and home work
12	2th+2p	Human physiology 2	Generation of Action Potential. Neuronal .Conduction: Types and Speed Synapsis: Types, and Function/ lab L blood prasure	theoretical and practical	exam and quiz and report and h work
13	2th+2p	Human physiology 2	CNS: Parts and Functions/ lab: repeat	theoretical and practical	exam and quiz and report and home work
14	2th+2p	Human physiology 2	Spinal Cord: Parts, General Functions, and .Spinal Reflexes PNS: Types and Function/ lab: ESC	theoretical and practical	exam and quiz and report and home work
15	2th+2p	Human physiology 2	nsory System: Classification and General .Function Special Sense Organs: Types and Gener Function/ lab: Body Temperature	theoretical and practical	exam and quiz and report and home work

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**text books**
Main References (sources)	Ganong of medical physiology
Recommended Books & References (Scientific Journals, Reports …)	Guyton and hall textbook of medical physiology
Websites or Electronic References	Vander renal physiology

جامعة البيان

Course Description (4)

1. Course Title	Histology 2
2. Course Code	02012204
3. Semester/Year	**Year**
4. Description Preparation Date	**2024-4-1**
5. Available Attendance Form	**Lectures and laboratory**
6. No. of Hours (Total)	**30 hours (theory)** **30 hours (practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Dr. Ahmed Turki Hani**
9. E-mail	**ahmedt@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Provide the students with basic knowledge about the structure of the human cells, tissues and extracellular matrices surrounding them: epithelium, connective tissues, including blood, bone cartilage, muscles, and nerves.
	A2	Learn the student the microscopic structure of the different human tissues.
	A3	Facilitate the integration of Histology with gross Anatomy, Physiology and Biochemistry.
	A4	Acquire student the skills of using the microscope and identifying the normal structures.
Skills	**B1**	Describe the normal ultra-structure of the cell.
	B2	Describe the organization and components of the human body.
	B3	Correlate between the predominance of a cell organelle and the function of the cell.
	B4	Correlate between histological structure & function of different organs of all systems.
Values	**C1**	Describe the normal ultra-structure of the cell.
	C2	Describe the organization and components of the human body.
	C3	Correlate between the predominance of a cell organelle and the function of the cell.
	C4	Correlate between histological structure & function of different organs of all systems.

11. Teaching and Learning Strategies

1.	Use professionally the light microscope to obtain information from histological slides in the laboratory.	**4.**	
2.	Identify and select various types of special stains for various tissues.	**5.**	
3.	Work constructively in a group sharing his/her colleagues in the resources available.	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p		Circulatory system	Data show and white board	Quiz/homework
2	2th+2p		Lymphoid system- Lymphatic vessels- Lymph	Data show and white board	Quiz/homework
3	2th+2p		Lymphoid organs	Data show and white board	Quiz/homework
4	2th+2p		Respiratory system	Data show and white board	Quiz/homework
5	2th+2p		Digestive system/ Part one- Oral cavity	Data show and white board	Quiz/homework
6	2th+2p		Digestive system/ Part two- Gastrointestinal tracts	Data show and white board	Quiz/homework
7	2th+2p		Digestive system/ Part three- Accessory Glands	Data show and white board	Quiz/homework
8	2th+2p		Urinary system 1	Data show and white board	Quiz/homework
9	2th+2p		Urinary system 2	Data show and white board	Quiz/homework
10	2th+2p		Endocrine system 1	Data show and white board	Quiz/homework
11	2th+2p		Endocrine system 2	Data show and white board	Quiz/homework
12	2th+2p		Male reproductive system	Data show and	Quiz/homework

				white board	
13	2th+2p		Female reproductive system	Data show and white board	Quiz/homework
14	2th+2p		Sense organ	Data show and white board	Quiz/homework
15	2th+2p		The integumentary system- Skin	Data show and white board	Quiz/homework

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description(5)

1. Course Title	Medical Parasitology & Entomology 2
2. Course Code	02012205
3. Semester/Year	**Semester**
4. Description Preparation Date	2024-3-29
5. Available Attendance Form	**In-person lecture+ online**
6. No. of Hours (Total)	**60 (30 Theoretical + 30 Practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Dr. safa tawfeeq whqeeb**
9. E-mail	safa.tawfeeq@albaya.edu.iq

10. Course Objectives

Knowledge	**A1**	Knowledge of the parasite's appearance, life cycle, and pathogenesis.
	A2	Diagnose all parasites of medical importance.
	A3	Identify the epidemiology of parasites with special reference to those endemic to Iraq.
	A4	Control and prevent the spread of disease
Skills	**B1**	Teaching the use of a microscope and diagnosing the stages of parasites
	B2	Teaching modern techniques in diagnosis
	B3	
	B4	
Values	**C1**	Participation in seminars and conferences held inside and outside the college
	C2	Motivating students to expand their thinking by making posters and scientific research
	C3	Develop skills to solve problems that hinder student understanding
	C4	Holding periodic seminars for students to exchange information, raise the level thinking, and enhance self-confidence

11. Teaching and Learning Strategies

1.	Education through pictures presentation	**4.**	
2.	Education through video presentation	**5.**	
3.	Education via online	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p	Medical Parasitology & Entomology 2	Platyhelminth: General characters. Class cestoda: General characters. Teaniasaginata: Teaniasolium: Morphology & the adult warm and the larval stages of each species, biology, life cycle of each species, pathologinicity of each species, Lab. Diagn	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
2	2th+2p	Medical Parasitology & Entomology 2	Hymenolepis nana, Hymenolepisdiminuta. Diplidium caninum, Diphyllobathrium latum, Biology, morphology, pathoginicity of eachspecies,Lab. Diagnosi	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
3	2th+2p	Medical Parasitology & Entomology 2	Echinococcus granulosus. Echinocuccusmultilocularis. Biology,life cycle, pathoginicity, medical importance of hydatid cyst disease ,Lab. Diagnosis.	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
4	2th+2p	Medical Parasitology & Entomology 2	Class Trematoda: General characters. Genus Schistosoma. Specis of human schistosoma, life cycle. Schistosoma hematobium. Schistosoma mansoni. Biology of adult worm, habitat, pathgenicity,Lab.diagnosis	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz

					- Monthly exam.
5	2th+2p	Medical Parasitology & Entomology 2	Fasciula hepatica Biology , life cycle, pathogenicity, Lab diagnosis. Nemathelminthis. ClssNemtoda, general characters.	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
6	2th+2p	Medical Parasitology & Entomology 2	Ascaris lambricoides Enterobius vermicul Biology of adult worm,lifecycle, pathgenicity and medical importance of each species, Lab. Diagnosis of each species.	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
7	2th+2p	Medical Parasitology & Entomology 2	Trichuris trichura. Trichenala spiralis. Biology , life cycle , pathogenicity, medical importanceof each species, Lab. Diagnosis of each species	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
8	2th+2p	Medical Parasitology & Entomology 2	Strogyloidesstercoralis. Biology, life cy pathgenicity, medical importance, I Diagnosis.	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
9	2th+2p	Medical Parasitology & Entomology 2	Ancylostomaduadenale , Necator Americans (Hooks worm) Biology, life cycle, pathogenicity, medical	Theoretical and practical	-Through questions during the lecture

			importance of each species, Lab. Diagnosis		-The student participat in explaining a topic - The Quiz - Monthly exam.
10	2th+2p	Medical Parasitology & Entomology 2	The filariae: Biology, pathgenicity and mec importance of each species, Lab. Diagnosis of each species. Visceral larvae migrance, Cutaneaus larvae migrance	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
11	2th+2p	Medical Parasitology & Entomology 2	Sand fly .	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
12	2th+2p	Medical Parasitology & Entomology 2	Black fly	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
13	2th+2p	Medical Parasitology & Entomology 2	Mosquitoes	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.

14	2th+2p	Medical Parasitology & Entomology 2	Ticks & Mites	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
15	2th+2p	Medical Parasitology & Entomology 2	Fleas+ Revision	Theoretical and practical	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Paniker's Textbook of Medical Parasitology**
Main References (sources)	**Paniker's Textbook of Medical Parasitology**
Recommended Books & References (Scientific Journals, Reports …)	**Evolutionary Parasitology** Textbook of Medical Parasitology
Websites or Electronic References	Any good research and good websites

جامعة البيان

Course Description (6)

1. Course Title	**Descriptive biostatistics**
2. Course Code	**02012206**
3. Semester/Year	**Semester**
4. Description Preparation Date	**2024/4/1**
5. Available Attendance Form	**Attendance**
6. No. of Hours (Total)	**30**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Assist. Prof. Dr. Arshed Hameed Yaseen**
9. E-mail	**Arshed.h87@uosamarra.edu.iq**

10. Course Objectives

Knowledge	**A1**	To use statistical techniques or methods to collect data and information from different sources and summarize in different ways, classify data into different classes and groups, analyze data by different statistical methods, and interpret the results to make decisions.
	A2	To use statistical tools or methods to measure the chance or likelihood scientifically that a particular event will occur.
	A3	To have the fundamental concepts of probability.
	A4	To use statistical techniques or methods to collect data in different classes and grou analyze data by different statistical methods, and interpret the results to make decisio
Skills	**B1**	Identify the meaning of Statistics, Apply Summation Notation and understand its properties.
	B2	Describe the Population and Sample.
	B3	Use graphical methods.
	B4	Identify the measures of tendency, Identify the measures of variation, Measure the relationship between two variables, and Identify the types of probability.
Values	**C1**	
	C2	
	C3	
	C4	

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11. Teaching and Learning Strategies

1.	The main strategy that will be adopted in delivering this module is to encourage student's 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 types of simple experiments involving some sampling activities that are interesting to the students like some simple and clear exercises. Different teaching techniques will be used to reach the objectives of this course. Firstly: The English language will be used during the lecture. Secondly: There will be classroom discussion and the lecturer will give enough time to solve, analyze, and evaluate problem sets throughout the semester. Thirdly: Worksheets will be designed to give students a chance to practice several aspects of the course in the classroom.

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Definitions: Statistics, Population Sample, Elements, Variables Data Sources: Types of Data:	Introduction to biostatistics	Data show projector	Homework exercise
2	2	Displaying grouped Frequency distribution	Strategies for Understanding Meaning of Data	Data show projector	Homework exercise
3	2	The Histogram The Frequency Polygon	Graphs	Data show projector	Homework exercise
4	4	Measures of central of tendency or measures of Location: 1-The Mean, Examples, Exercises 2-The Median, Examples, and Exercises. 3-The Mode, Examples, Exercises	Measures of Central Tendency	Data show projector	Homework exercise
6	4	Measures of Dispersion: 1-The Range 2-The Sample Variance (S2): a-Examples, b-Exercises 3-The Standard Deviation (S): a-Examples, b-Exercises 4-The Coefficient of Variation (C.V.), Examples, Exercises.	Measures of Dispersion (Measures of Variation)	Data show projector	Homework exercise
8	2		Midterm exam		

9	4	Box plot: display of distribution Coefficient of Correlation Scatter plot Regression	Coefficient of Correlation	Data show projector	Homework exercise
11	4	Probability Experiments, Outcomes, Sample Space, Events Probability Roles	Probability	Data show projector	Homework exercise
13	4	Combination and binomial probability distribution	Binomial probability	Data show projector	Homework exercise
15	2	Test and hypothesis (t-test, z-score), application in R	Test and hypothesis	Data show projector	Homework exercise
16			Final exam		

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	1. Statistics for Business and Economics- 2000, Anderson, Sweeny 2. Schaum's Outline of Theory and Problems of Probability, Random Variables, and Random Processes, Hwei P. Hsu, McGraw-Hill, 1997. Schaum's Easy Outlines Probability and Statistics, Murray R. Spiegel, McGraw-Hill, 2001.
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	1. Statistics for Management and Economics 2003 –Gerald Keller & Brian Warrak. Statistics for Economics, Accounting, and Business Studies, Michael Barrow.
Websites or Electronic References	

جامعة البيان

Course Description (1)

1. Course Title	Histopathology
2. Course Code	0201314
3. Semester/Year	**Year**
4. Description Preparation Date	**1/4/2024**
5. Available Attendance Form	**Lectures and laboratory sessions**
6. No. of Hours (Total)	**60 hours (theory)** **60 hours (practical)**
7. No. of Credits (Total)	**7**
8. Course Administrator Name	**Dr. Ahmed Turki Hani**
9. E-mail	**ahmedt@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Provides the students with the essential basic scientific knowledge required to understand in integrated manner the structure and functional deviations from the normal in the various bo systems and organs.
	A2	Familiarize students with the basic pathology.
	A3	Understand the etiology, pathogenesis and pathologic manifestation of disease process.
	A4	Provide the students with the skills of differentiation between normal and abnormal tissues.
Skills	**B1**	Describe and contrast neoplasm and cysts.
	B2	Identify pathological changes by the light microscope
	B3	Describe the pathologic picture of a disorder based on gross or microscopic morphology
	B4	Demonstrate the ability to identify the macroscopic and microscopic criteria of the altered struct and hence function of the tissue in disease process
Values	**C1**	Explain terms and divisions in general pathology.
	C2	Demonstrate an understanding of the etiology and pathogenesis of disease & it's effects on the b
	C3	Explain the salient principles of inflammation and repair
	C4	Describe circulatory dysfunction

11. Teaching and Learning Strategies

1.		**4.**	
2.		**5.**	
3.		**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p		Introduction, cell constituent	Data show and white board	Quiz and homework
2	2th+2p		Inflammation, Repair & Degeneration Acute Inflammation	Data show and white board	Quiz and homework
3	2th+2p		Chronic Inflammation	Data show and white board	Quiz and homework
4	2th+2p		Repair, healing & Regeneration	Data show and white board	Quiz and homework
5	2th+2p		Rettrograde, changes, Degeneration	Data show and white board	Quiz and homework
6	2th+2p		Atropphy Necrosis, cloudy swelling	Data show and white board	Quiz and homework
7	2th+2p		Gangrene	Data show and white board	Quiz and homework
8	2th+2p		Criteria used for cytopathological diagnosis of cancer	Data show and white board	Quiz and homework
9	2th+2p		Changes in the cytoplasma malignancy, Changes in the nucleus in malignancy	Data show and white board	Quiz and homework
10	2th+2p		Changes in cell as a general malignancy	Data show and white board	Quiz and homework

11	2th+2p		Numenclature of tumors	Data show and white board	Quiz and homework
12	2th+2p		Classification of tumors.	Data show and white board	Quiz and homework
13	2th+2p		Fixation & Fixatives, Theoretical aspects of Fixation, Most common fixatives common use	Data show and white board	Quiz and homework
14	2th+2p		Fixation for special substanc Specializes Techniques individual tissue & fixati Arte fact	Data show and white board	Quiz and homework
15	2th+2p		Tissue processing, Fixation, dehydration, clearing, embedding	Data show and white board	Quiz and homework
16	2th+2p		Factors influencing rate impregnation, Agitation, heat, viscosity, ultrasonies, vacuum	Data show and white board	Quiz and homework
17	2th+2p		Microtomy and paraffin section	Data show and white board	Quiz and homework
18	2th+2p		Staining of tissue sectio Hematoxylin,eosin, connective tissue,stains	Data show and white board	Quiz and homework
19	2th+2p		Special stains	Data show and white board	Quiz and homework

			for proteine,carbohydrat lipid,mucosubstance,pigmen minerals,apud cell and microorganisms		
20	2th+2p		Preparationof bone sections	Data show and white board	Quiz and homework
21	2th+2p		Demonstration of cytoplasn granules organells and secial tissue	Data show and white board	Quiz and homework
22	2th+2p		Neuropatholgical techniques	Data show and white board	Quiz and homework
23	2th+2p		Enzyme histochemistry and aplicaton	Data show and white board	Quiz and homework
24	2th+2p		Immunohistochemistry and application	Data show and white board	Quiz and homework
25	2th+2p		Resin embedding media	Data show and white board	Quiz and homework
26	2th+2p		Electron microscopy techniques	Data show and white board	Quiz and homework
27	2th+2p		Electron microscopy -Diagnosic uses	Data show and white board	Quiz and homework
28	2th+2p		Histometry and diagnostic uses	Data show and white board	Quiz and homework
29	2th+2p		Immunofluoresence Techniques	Data show and white board	Quiz and homework
30	2th+2p		Museum and other demonstration techniques	Data show and white board	Quiz and homework

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Robins Basic Pathology**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (2)

1. Course Title	**Hematology**
2. Course Code	**0201315**
3. Semester/Year	**1st&2nd course/2023-2024**
4. Description Preparation Date	**1/4/2024**
5. Available Attendance Form	**Theoretical + Practical**
6. No. of Hours (Total)	**60 (30 Theoretical + 30 Practical)**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Fadaa Abdullah Mahmoud**
9. E-mail	**fathaa.m@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Giving the student expanded and recent idea about hematology and normal a abnormal ranges of blood components in addition to the changes that occur infection with different diseases.
	A2	
	A3	
	A4	
Skills	**B1**	Giving the student a good idea about important diagnostic characteristics of each hematological disease.
	B2	
	B3	
	B4	
Values	**C1**	Setting a good information basis to enable the student to follow up with medical society with they dealing in hospitals.
	C2	
	C3	
	C4	

11. Teaching and Learning Strategies

1.	**Practical doing of hematological tests**	**4.**	
2.		**5.**	
3.		**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Practical/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p	Learning of blood collection	Blood collection	Theoretical + Practical	Quis
2	2th+2p	Distinguish between Anticoagulant types	Anticoagulants	Theoretical + Practical	Quis
3	2th+2p	Learning the normal values	Normal value of all blood components according to age	Theoretical + Practical	Quis
4	2th+2p	Hb testing and anemia diagnosis	Hb estimation by different methods	Theoretical + Practical	Quis
5	2th+2p	Blood viscoisity testing	Packed cell volume PCV	Theoretical + Practical	Quis
6	2th+2p	Knowing RBCs Count diagnose pathological conditions	RBCs count (manual) and automated RBCs count	Theoretical + Practical	Quis
7	2th+2p	Testing of RBCs indices	Red cell indices MCV, MCH, MCHC	Theoretical + Practical	Quis
8	2th+2p	Blood Picture microscopically	preparation of blood film	Theoretical + Practical	Quis
9	2th+2p	Blood Picture microscopically	preparation of blood film	Theoretical + Practical	Quis
10	2th+2p	Learning shape and size of RBCs	Study of red cell morphology in health and disease	Theoretical + Practical	Quis
11	2th+2p	Distinguishing	Inclusion bodies in red blood cells	Theoretical +	Quis

		inclusion bodies inside RBCs		Practical	
12	2th+2p	RBCs testing	Osmotic fragility test and reticulocyte count	Theoretical + Practical	Quis
13	2th+2p	Diagnosis of sikle cell anemia	Sickle cell test and electrophoresis	Theoretical + Practical	Quis
14	2th+2p	Diagnosis of some pathological conditions	Erythrocyte sedimentation rate ESR	Theoretical + Practical	Quis
15	2th+2p	Study the previous subjects	Study the previous subjects	Theoretical + Practical	Quis
16	2th+2p	Diagnosis of some pathological conditions	Total white blood cell count	Theoretical + Practical	Quis
17	2th+2p	Testing increase decrease of WBCs	Absolute count of leukocytes	Theoretical + Practical	Quis
18	2th+2p	Testing increase decrease of WBCs	Differential count of leukocytes	Theoretical + Practical	Quis
19	2th+2p	Testing increase decrease of Eosinophil	Eosinophil count	Theoretical + Practical	Quis
20	2th+2p	Diagnosis of leukemia	Blood film of leukemia	Theoretical + Practical	Quis
21	2th+2p	Diagnosis of leukemia	Special stain of leukemia	Theoretical + Practical	Quis
22	2th+2p	Diagnosis of leukemia	Special stain of leukemia	Theoretical + Practical	Quis
23	2th+2p	Testing increase and decrease of platelet	Platelets count	Theoretical + Practical	Quis

24	2th+2p	Diagnosis of bleeding disorders	Bleeding time	Theoretical + Practical	Quis
25	2th+2p	Diagnosis of thrombotic disorders	Clotting time	Theoretical + Practical	Quis
26	2th+2p	Diagnosis of thrombotic disorders	Prothrombine time	Theoretical + Practical	Quis
27	2th+2p	Diagnosis of thrombotic disorders	Partial prothrombine time	Theoretical + Practical	Quis
28	2th+2p	Diagnosis of thrombotic disorders	Detection of coagulation factors deficiency by coagulometer	Theoretical + Practical	Quis
29	2th+2p	Learning safety of labs	Quality control of laboratory	Theoretical + Practical	Quis
30	2th+2p	Study the previous subjects	Study the previous subjects	Theoretical + Practical	Quis

13. Course Evaluation	
Daily preparation 10 Monthly exams 10 Monthly exams 20 Oral exams 10 Monthly exams 50	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Hematology Science book**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (3)

1. Course Title	**Virology &Mycology**
2. Course Code	**0201316**
3. Semester/Year	**yearly**
4. Description Preparation Date	**1/4/2024**
5. Available Attendance Form	**Lectures(Theory &Practical)**
6. No. of Hours (Total)	**60 (30 Theoretical + 30 Practical)**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Dr.Ghufran.h.Abed**
9. E-mail	**Ghufran.h@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Make the student known to medical viruses and fungi, and the causes of it diseas
	A2	
	A3	
	A4	
Skills	**B1**	Make the student how diagnose the viral and fungal diseases and how to treatmer
	B2	
	B3	
	B4	
Values	**C1**	The student must have full knowledge of viral and fungal diseases and how to d with them.
	C2	
	C3	
	C4	

11. Teaching and Learning Strategies

1.	Intellectual or mental education	**4.**	
2.	Collaborative co-education	**5.**	
3.	Blended learning	**6.**	

13. The Structure of the Course **12.**

Week	Hours		RLOs	Topic/Subject Name	Learning Method	Evaluation Method
	Theory	Practical				
1	2	2	Theory: General properties of Virus Practice: Laboratory Safety &Vi Identification	Introduction to medical virolo	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
2	2	2	Structure, Classification and Nomenclature of the Viruses Clinical Samples Collection&Preservation	Viral classification	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
3	2	2	Atypical Virus-like agents (Prions, Defective viruses, Pseudovirion and Viriods). Direct Examination : Microscopical Examination Electron Microscopy Examination	Atypical virus	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
4	2	2	Viral Genetic and Molecular&Viral Replication. Isolation and Cultivation of Viruses	Replication of viruses	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
5	2	2	Viral Pathogenesis and Transmission Preservation and Titration of Virus	Viral Pathogenesis	Method of giving lectures Discussion method Cooperative education	Oral &written exam.

6	2	2	Immunity&Laboratory Diagnosis of Viruses Practice:Immunological Techniques	Laboratory Diagnosis of Viruses	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
7	2	2	Herpes virus ELISA test	Herpes virus	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
8	2	2	Hepatitis virus Complement fixation test	Hepatitis virus	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
9	2	2	Human Immune Deficiency virus Insito ELA	HIV	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
10	2	2	Orthomyxovirus RIA	Orthomyxovirus	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
11	2	2	Paramyxovirus Latex agglutination	Paramyxovirus	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
12	2	2	Enteric viruses (Rota, Polio and Reo viruses)	Enteric viruses	Method of giving lectures Discussion method Cooperative education	Oral &written exam.

			Neutralization test			
13	2	2	Rabies and other Neurotropic viruses Heamagglutination (HA) and Heamagglutination Inhibition tests	Rabies	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
14	2	2	Poxvirus Fluorescent Technique	Poxvirus	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
15	2	2	Coronavirus Flow Cytometry	Coronavirus	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
16	2	2	Adeno and Parvo viruses Agar Gel diffusion precipitation test	Adenovirus	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
17	2	2	Arbovirus Rapid Diagnosis of Viruses	Arbovirus	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
18	2	2	Oncogenic viruses Molecular Techniques: Nucleic a extraction	Oncogenic viruses	Method of giving lectures Discussion method Cooperative education	Oral &written exam.

19	2	2	Bacteriophages (Bacterial viruses) PCR	Bacteriophages	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
20	2	2	Antiviral drugs&vaccines RT-PCR	Antiviral drugs&vaccines	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
21	2	2	Introduction to medical mycology, History and Epidemiology of medical mycology. Specimen collection: transport and storage Direct microscope examination of clinical specimens.	Introduction to medical mycology.	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
22	2	2	Morphology,Classification, reproduction of pathogenic fungi. Culture of Fungi	Classification, reproduction of pathogenic fungi.	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
23	2	2	Superficial mycosis : Tinea types and Dermatiaceuos (black fungi)	Superficial mycosis	Method of giving lectures Discussion method	Oral &written exam.

			Serological and Skin tests.		Cooperative education	
24	2	2	Cutaneous mycosis: Trychphytons Microsporiumspp and Epidermophyton spp . Superficial: Trichophytonspp, Microsporiumspp, Epidermophyton spp.	Cutaneous mycosis:	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
25	2	2	Subcutaneous mycosis: Sporothricosis and Mycetoma. Superficial mycosis : Tinea types a Dematiaceuos (Black fungi).	Subcutaneous mycosis.	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
26	2	2	Infection due to filamentous fu (Zygomycosis and Aspergillosis). Infection caused by Yeasts(Candidiasis and Cryptococcosis)	filamentous fungi	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
27	2	2	Infection caused by yeasts(Candidiasis and Cryptococcosis). Opportunistic mycosis: Mucor and Penicillosis	yeasts	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
28	2	2	Opportunistic mycosis: Mucor and Penicillosis. Antibiotics produced by fungi	Opportunistic mycosis	Method of giving lectures Discussion method Cooperative education	Oral &written exam.

			Systemic mycosis: Coccidiomycosis and Blastomycosis			
29	2	2	Systemic mycosis: Coccidiomycosis and Blastomycosis Histoplasmosis and Paracoccidiomycosis.	Systemic mycosis:	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
30	2	2	Histoplasmosis and Paracoccidiomycosis Antifungal agentsMycotoxins Antifungal agents (Sensitivity tests). Mycotoxins isolation	Antifungal agents	Method of giving lectures Discussion method Cooperative education	Oral &written exam.

14. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
15. Learning & Teaching Resources	
Required textbooks (curricular if any)	Jawetz, R., J.L. Melnick, and E.A. Adelberg,(2019). Review of Medical
Main References (sources)	Review of Medical Microbiology and Immunology. Warren Levinson, 12th May 2012. Mc Graw-Hill (Lange). Microbiology, Twenty-Eighth Edition Edition,. Christopher J. Burrell, ... Frederick A. Murphy, in Fenner and White's Medical Virology (Fifth Edition), 2017
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	https://hmt.mtu.edu.iq/e-learning/

جامعة البيان

Course Description (4)

1. Course Title	**Clinical chemistry**
2. Course Code	**0201317**
3. Semester/Year	**2023-2024**
4. Description Preparation Date	**04/04/2024**
5. Available Attendance Form	**Attendance in the classroom in addition to e-learning**
6. No. of Hours (Total)	**(60 Theoretical + 60 Practical)**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Dr. Samar Thamer Hameed**
9. E-mail	**Samar.thamer@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**Introducing the student to the basic principles related pathological analyzes in clinical chemistry**
	A2	**Introducing the student to the theoretical and practic foundations of laboratory tests in clinical chemistry for vario diseases**
	A3	**Particular emphasis on examinations of some organs related biochemical compounds**
	A4	**Introducing important experiments using modern techniques laboratory diagnosis, giving the student a new opportunity learn about specific tests**
Skills	**B1**	**The student should be able to acquire basic knowledge and ski in clinical chemistry**
	B2	**Teaching the student how to become able to think logical analyze, and employ the prescribed curriculum vocabulary.**
	B3	**Developing the student's mental and personal ability in t specialty is an important part of his field of specialization**
	B4	**Providing the student with communication skills and usi modern educational technologies effectively.**
Values	**C1**	**The student should be able to work collaboratively a individually to conduct clinical chemistry analyses**
	C2	**The student should be able to use information technology search for information**

	C3	The student should be able to communicate with the profess and colleagues
	C4	The student must be able to rely on himself

11. Teaching and Learning Strategies

1.	Providing an appropriate educational climate for logical thinking through continuous guidance of students during lectures	4.	Use the display screen to lecture and the blackboard.
2.	Opening the door for open and direct discussions with students	5.	Visit the library
3.	Follow a cooperative learning strategy	6.	Directing the student to websites to benefit from them

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1,2	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	WATER HOMEOSTASIS	Gain information about the mechanism of water balance in the human body	Oral questions
3,4	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	MINERAL METABOLISM: - Electrolytes: Na, K, Cl, Mg, Ca - Trace elements: Fe, Cu, Zn, Mn, F	Knowledge of the metabolism of some minerals	solving equations
5,6	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	BLOOD GASES: - Acid - Base balance - Blood pH & Blood buffer	How to prepare acids and bases	solving equations
7,8	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Diabetes mellitus	Knowing the cause and types diabetes	solving equations
9,10,11	6	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	LIVER: - Physiology and role in metabolism - Bilirubin metabolism - Bile salts & gall stones - Liver function tests Disorders of the Liver: i) Jaundice & Neonatal Jaundice ii) Alcoholic Liver disease iii) Hepatitis iv) Cirrhosis v) Liver tumors	Identify tumors and diseases that affect them	Written exam
12,13	4	A1, A2, A3, A4, B1, B2, B3, B4, C2, C3, C4	KIDNEY: - Functions - Renal functions tests - Proteinuria - Renal failure (Acute:Chronic)	Learn about the kidney, functions, and the diseases that affect it	solving equations
14,15	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Disorder in lipid metabolism Cholesterol T.G,phospholipids lipoprotein Tests (lipid profile)	Knowledge of the types of blood plasma fats and their experiences	solving equations

16	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	HEART: - Enzymes affected in heart diseases and pulmonary embolism (infarction, angina, pulmonary embolism)	Knowing the diseases that affect the heart and parameters	Discussions
17	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Pancreatic function ,exocrine,function,Pathology P.F.T Disease	Learn about its functions a explanations	Oral questions and discussions
18,19	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Serum protein components diseases	Identifying blood plasma proteins and diagnos diseases	Oral questions and discussions
20,21,2	6	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	TUMOR MARKERS	Learn about unexpected thing	Oral questions and discussions
23,24,2	6	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Enzymes isoenzymes patterns to pathology Aldolase, CK, LDH, LP , AlT AST, Acp	Identification of some enzymes does not allow diagnosis of diseases	Oral questions and discussions
26-30	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	General aspect of hormone Transport regulation Thyroid, gastrointestinal, steroid Hormones Parathyroid, adrenal hormone Sex hormones	Distinguishing proteins and their types	Oral questions and discussions

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1, 2	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Estimation of serum Na, K, Li, Ca using: - Flame photometry - Ion selective electrode (ISE)	Gaining information about the mechanism of water balance in the human body and analyzing ions	Oral questions
3, 4	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Chemical estimation of serum Fe, Ca	Know how to calculate the concentration of iron and calcium	Conducting practical experiments
5, 6	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Estimation of Blood gases and determination of Blood pH: - Use, maintenance of Blood gas analyzer - Correct handling of blood samples for gas analysis	How to balance acids and bases	Conducting practical experiments
7, 8	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Estimation of glycated Hemoglobin HbA1c	Know the causes and types of diabetes	Conducting practical experiments
9, 10, 11	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Liver function tests (LFT): - Alanine transaminase (ALT) - Aspartate transaminase (AST) - Alkaline phosphatase (ALP) - γ-Glutamyl transferase (GGT) - Bilirubin: Total, direct & indirect	Identify the functions of the liver and the diseases that affect it	Conducting practical experiments
12,13	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Renal function tests: - Estimation of blood urea - Estimation of serum Creatinine - Creatinine clearance	Learn about the kidney, its functions, and the diseases that affect it	Conducting practical experiments
14, 15	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Tests (lipid profile)	Knowing the types of blood plasma fats and their tests	Conducting practical experiments
16, 17	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Estimation of Cardiac enzymes -GOT -LDH CK & Treponin I	Knowing the diseases that affect the heart and its parameters	Conducting practical experiments
18	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Pancreatic function tests,	Identify the functions of the pancreas and its tests	Conducting practical experiments
19	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Seperation of plasma proteins using high resolution protein electrophoresis (Normal and Abnormal samples)	Identifying blood plasma proteins and their usefulness in diagnosing diseases	Conducting practical experiments
20, 21, 22	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	TUMOR MARKERS Tests	Identify tumor parameters	Conducting practical experiments

			Estimation of alpha feto protein , CEA ,CA 153. CA 19.9 & CA 125		
23, 24, 25	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Enzymes isoenzymes patterns to pathology .T,Aldolase, CK, LDH, LP , A.la T ASP .T AS Acp ,A	Identify some enzymes that are useful in diagnosing diseases	Conducting practical experiments
26-30	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	General aspect of hormone Transport regulation Thyroid ,gastointestinal steroid Hormones Parathyroid ,adrenal hormone Sex hormones	Identify hormones and their types	Conducting practical experiments

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Peter Rae - Clinical Biochemistry Lecture Notes (2018, John Wiley & Sons Ltd)
Main References (sources)	William Clarke PhD (editor), Mark Marzinke (editor) - Contemporary Practice in Clinical Chemistry-Academic Press (2020)
Recommended Books & References (Scientific Journals, Reports …)	Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, 9th Edition
Websites or Electronic References	https://www.sciencedirect.com/ https://pubmed.ncbi.nlm.nih.gov/

جامعة البيان

Course Description (5)

1. Course Title	**Human Genetics**
2. Course Code	0201318
3. Semester/Year	2024/2023
4. Description Preparation Date	2024/3/29
5. Available Attendance Form	**Theoretical + Practical**
6. No. of Hours (Total)	**(60) Theoretical+ (60) Practical**
7. No. of Credits (Total)	**7**
8. Course Administrator Name	**Asst.Prof.Riad Abdulhussien Delool**
9. E-mail	Riad.delool@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Knowledge of inheritance systems
	A2	Studying the effect of mutations on genetic traits
	A3	Chromosomal changes and their effects
	A4	Environmental changes and their relationship to genetic traits
Skills	**B1**	Identify the effect of genetic mutations
	B2	Identify genetic traits and acquired traits
	B3	Identify the inheritance of genetic diseases
	B4	Identify the characteristics that are related to the sex of the organism
Values	**C1**	Trying to differentiate between scientific studies and social factors
	C2	Respecting religious traditions and social norms in genetic studies
	C3	Trying to explain how genetic changes are transmitted between generations
	C4	In-depth studies of the family tree and how genetic traits are transmitted

11. Teaching and Learning Strategies

1.	**Attempting practical application of theoretical studies**	**4.**	**Many short-term scientific missions**
2.	**Continuously developing the curriculum**	**5.**	**More tests to develop students' level**
3.	**Continuous review of international educational systems**	**6.**	**Continuous interaction with other universities to identify differences in teaching methods**

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12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Cell divisions	Theoretical study practical applications	Conduct quick exams
2	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Types of traits (hereditary and acquired)	Theoretical study practical applications	Conduct quick exams
3	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Types of traits (hereditary and acquired)	Theoretical study practical applications	Conduct quick exams
4	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Types of traits (hereditary and acquired)	Theoretical study practical applications	Conduct quick exams
5	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Genetic diseases and an attempt practical clarification	Theoretical study practical applications	Conduct quick exams
6	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Genetic diseases and an attempt practical clarification	Theoretical study practical applications	Conduct quick exams
7	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Genetic diseases and an attempt practical clarification	Theoretical study practical applications	Conduct quick exams
8	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Sovereignty, abdication, and other method inheritance	Theoretical study practical applications	Conduct quick exams
9	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Sovereignty, abdication, and other method inheritance	Theoretical study practical applications	Conduct quick exams
10	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Sovereignty, abdication, and other method inheritance	Theoretical study practical applications	Conduct quick exams

11	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Sex-linked inheritance with examples explanations	Theoretical study practical applications	Conduct quick exams
12	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Sex-linked inheritance with examples explanations	Theoretical study practical applications	Conduct quick exams
13	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Sex-linked inheritance with examples explanations	Theoretical study practical applications	Conduct quick exams
14	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Sex-linked inheritance with examples explanations	Theoretical study practical applications	Conduct quick exams
15	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Mutagenic agents of all kinds	Theoretical study practical applications	Conduct quick exams
16	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Mutagenic agents of all kinds	Theoretical study practical applications	Conduct quick exams
17	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Mutagenic agents of all kinds	Theoretical study practical applications	Conduct quick exams
18	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	The relationship between genetics cancer	Theoretical study practical applications	Conduct quick exams
19	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	The relationship between genetics cancer	Theoretical study practical applications	Conduct quick exams
20	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	The relationship between genetics cancer	Theoretical study practical applications	Conduct quick exams
21	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	The relationship between genetics cancer	Theoretical study practical applications	Conduct quick exams
22	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Family tree and how to benefit from genetic information	Theoretical study practical applications	Conduct quick exams
23	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Family tree and how to benefit from genetic information	Theoretical study practical applications	Conduct quick exams

24	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Family tree and how to benefit from genetic information	Theoretical study practical applications	Conduct quick exams
25	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Genetic counseling	Theoretical study practical applications	Conduct quick exams
26	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Genetic counseling	Theoretical study practical applications	Conduct quick exams
27	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Genetic counseling	Theoretical study practical applications	Conduct quick exams
28	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Gene therapy, chemical and physical treatments	Theoretical study practical applications	Conduct quick exams
29	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Gene therapy, chemical and physical treatments	Theoretical study practical applications	Conduct quick exams
30	2Th+2p	**The student must be aware of information provided to him and extent of its application to reality**	Gene therapy, chemical and physical treatments	Theoretical study practical applications	Conduct quick exams

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Basics of genetics**
Main References (sources)	**International scientific references**
Recommended Books & References (Scientific Journals, Reports …)	**Specialized scientific journals and published scientific reports**
Websites or Electronic References	**Scientific references on the Internet, such as the (human genetics) website.**

جامعة البيان

Course Description (6)

1. Course Title		Immunology
2. Course Code		0201319
3. Semester/Year		Semester 1&2 /3th stage/ 2023-2024
4. Description Preparation Date		2\mar.\2024
5. Available Attendance Form		face to face learning
6. No. of Hours (Total)		(60 Theoretical + 60 Practical)
7. No. of Credits (Total)		6
8. Course Administrator Name		Hayder Ahmed Kadhim
9. E-mail		Hayder.a@albayan.edu.iq
10. Course Objectives		
Knowledge	**A1**	Knowledge and Understanding
	A2	Gaining experience in performing immunoassays
	A3	Gaining experience in the work of modern equipment
	A4	Dealing with various advanced laboratory analyzes
Skills	**B1**	Subject-specific skills
	B2	Training to use the equipment
	B3	making reports
	B4	Research work
Values	**C1**	Develop the student's ability to work with devices
	C2	Develop the student's ability to use modern laboratory equipment and techniques
	C3	Develop the student's ability to dialogue and debate

	C4	Develop the student's ability to research

11. Teaching and Learning Strategies

1.	The discussion	**4.**	Field visits to educational laboratories
2.	daily exams	**5.**	
3.	Directing students to some websites related to the scientific subject	**6.**	

12. The Structure of the Course

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Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2th+2p	Introduction,cell constituents	Immunology: definition and classification of the divisions of immunity, natural and acquired immunity, factors and defenses of natural	theoretical & practical	Daily exam and direct questions
2	2th+2p	Inflammation, Repair & Degeneration Acute Inflammation	tissues and lymphocytes, their origin, receptors and stages of maturation .Primary and secondary lymphoid organs.	theoretical & practical	Daily exam and direct questions
3	2th+2p	Chronic Inflammation	mononuclear cells monocytes , phagocytic cellsPhagocytosisOrigin, maturation, receptors, types and antigen presenting cellsAPC Inflammation,	theoretical & practical	Daily exam and direct questions
4	2th+2p	Repair, healing & Regeneration	the immune response: primary and secondary, their characteristics and the differences between them, regulation of the immune response	theoretical & practical	Daily exam and direct questions
5	2th+2p	Rettrograde, changes, Degeneration	Rettrograde,changes,Degeneration	theoretical & practical	Daily exam and direct questions
6	2th+2p	Atropphy Necrosis,cloudy swelling	Atropphy Necrosis,cloudy swelling	theoretical & practical	Daily exam and direct questions
7	2th+2p	Gangrene	Gangrene	theoretical & practical	Daily exam and direct questions
8	2th+2p	Criteria usedforcytopathological diagnosis of cancer	Criteria usedforcytopathological diagnosis of cancer	theoretical & practical	Daily exam and direct questions
9	2th+2p	Changes in the cytoplasma in malignancy Changes in the nucleus in malignancy	Changes in the cytoplasma in malignancy Changes in the nucleus in malignancy	theoretical & practical	Daily exam and direct questions
10	2th+2p	Changes in cell as a general in malignancy	Changes in cell as a general in malignancy	theoretical & practical	Daily exam and direct questions
11	2th+2p	Numenclature of tumors	Numenclature of tumors	theoretical & practical	Daily exam and direct questions
12	2th+2p	Classification of tumors	Classification of tumors	theoretical & practical	Daily exam and direct questions

13	2th+2p	Fixation&Fixatives Theoretical aspects of Fixation Most common fixatives in common use	Fixation & Fixatives Theoretical aspects of Fixation Most common fixatives in common use	theoretical & practical	Daily exam and direct questions
14	2th+2p	Fixation for special substances Specializes Techniques forindividual tissue &fixation Arte fact	Fixation for special substances Specializes Techniques for individual tissue & fixation Arte fact	theoretical & practical	Daily exam and direct questions
15	2th+2p	Tissue processting Fixation ,dehydration ,clearing ,emb edding	Tissue processting Fixation ,dehydration ,clearing ,embe dding	theoretical & practical	Daily exam and direct questions
16	2th+2p	Factors influencing rate of impregnation Agitation ,heat,viscosity,ultrasonies, vacuum	Factors influencing rate of impregnation Agitation ,heat, viscosity, ultrasonies, vacuum	theoretical & practical	Daily exam and direct questions
17	2th+2p	Microtomyandparaffin section	Microtomyandparaffin section	theoretical & practical	Daily exam and direct questions
18	2th+2p	Staining of tissuesections Hematoxylin ,eosin ,connective tissue ,stains	Staining of tissuesections Hematoxylin ,eosin ,connective tissue ,stains	theoretical & practical	Daily exam and direct questions
19	2th+2p	Special stains for proteine ,carbohydrates,lipid ,muco substance,pigments minerals ,apud cell and microorganisms	Special stains for proteine ,carbohydrates,lipid ,mucos ubstance,pigments minerals ,apud cell and microorganisms	theoretical & practical	Daily exam and direct questions
20	2th+2p	Preparationof bone sections	Preparationof bone sections	theoretical & practical	Daily exam and direct questions
21	2th+2p	Demonstration of cytoplasmic granules organells and secial tissue	Demonstration of cytoplasmic granules organells and secial tissue	theoretical & practical	Daily exam and direct questions
22	2th+2p	Neuropatholgical tech niques	Neuropatholgical tech niques	theoretical & practical	Daily exam and direct questions
23	2th+2p	Enzyme histochemistry and aplicaton	Enzyme histochemistry and aplicaton	theoretical & practical	Daily exam and direct questions
24	2th+2p	Immunohistochemistry and application	Immunohistochemistry and application	theoretical & practical	Daily exam and direct questions
25	2th+2p	Resin embedding media	Resin embedding media	theoretical & practical	Daily exam and direct questions
26	2th+2p	Electron microscopy –techniques	Electron microscopy –techniques	theoretical & practical	Daily exam and direct questions
27	2th+2p	Electron microscopy –Diagnosic uses	Electron microscopy –Diagnosic uses	theoretical & practical	Daily exam and direct questions
28	2th+2p	Histometry and diagnostic uses		theoretical & practical	Daily exam and direct questions

29	2th+2p	Immunofluoresence Techniques		theoretical & practical	Daily exam and direct questions
30	2th+2p	Museum and other demonstration techniques		theoretical & practical	Daily exam and direct questions

13. Course Evaluation
The score out of 100 is based on the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Kuby IMMUNOLOGY. Sixth Edition
Main References (sources)	Kuby IMMUNOLOGY. Sixth Edition
Recommended Books & References (Scientific Journals, Reports …)	Lectures , field studies
Websites or Electronic References	Ncbi Research gate

جامعة البيان

Course Description (7)

1. Course Title	Advanced lab techniques theoretical and practical
2. Course Code	0201320
3. Semester/Year	Courses
4. Description Preparation Date	2024\3\29
5. Available Attendance Form	Attendance
6. No. of Hours (Total)	**(60 Theoretical + 60 Practical)**
7. No. of Credits (Total)	6
8. Course Administrator Name	Lecturer Mahmood hameed majeed
9. E-mail	Mahmood.h@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Definition and introduction to the most important laboratory techniques
	A2	Practical application of diagnostic methods on modern devices
	A3	Identifying the most important diseases and the most common diseases in laboratories
	A4	Understanding the mechanism of development of diseases of the urinary system and digestive system semen examinations
Skills	**B1**	The student learns the skill of drawing blood, taking a urine sample and other bodily fluids, and how to Sav the sample and transporting it to the laboratory
	B2	The student learns the skill of conducting immunological examinations and other laboratory techniques Clinical diagnosis such as ASO, GUE, GSE and other examinations
	B3	The student acquires the skill of operating the ELISA device, programming the VIDAS & MINIVII device, and dealing with books. It is ready for the purpose of quick examinations.
	B4	Applying diagnostic criteria, comparing their types, and learning on the latest devices.
Values	**C1**	Learn about laboratory techniques
	C2	Identify the most important disorders and problems accompanying the digestive and urinary systems Semen in humans
	C3	Understanding diseases of the immune system and other diseases, their types, causes, methods of diagno them, and Such as examining individual immune proliferation, the effect of complement, and estimating quantity of Immune globulin and other components of bodily fluids, blood serum, and fluids For any o body.
	C4	Analyze the results by comparing the result of a healthy person

11. Teaching and Learning Strategies

1.	Lectures	4.	QUIZ
2.	USE DATASHOW	5.	Theoretical and practical lectures
3.	Adopting video lectures to increase knowledge	6.	Quarterly exams

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th +2p	The student gets to know	**Microbiology**	**Theoretical and practical**	Quiz + Attendance
2	2th +2p	The student gets to know	**Introduction**	**Theoretical and practical**	Quiz + Attendance
3	2th +2p	The student gets to know	**Safety and principles of sterilization**	**Theoretical and practical**	Quiz + Attendance
5-4	2th +2p	The student gets to know	**Collection, Transport, Examination reporting of specimens**	**Theoretical and practical**	Quiz + Attendance
7-6	2th +2p	The student gets to know	**Culturing of organisms**	**Theoretical and practical**	Quiz + Attendance
9-8	2th +2p	The student gets to know	**Conventional microbiological techniques**	**Theoretical and practical**	Quiz + Attendance
12-11-1	2th +2p	The student gets to know	**Biochemical testing of microorganisms**	**Theoretical and practical**	Quiz + Attendance
13	2th +2p	The student gets to know	**Serological diagnostic techniques**	**Theoretical and practical**	Quiz + Attendance
14	2th +2p	The student gets to know	**diagnostic techniques**	**Theoretical and practical**	Quiz + Attendance
15	2th +2p	The student gets to know	**Molecular diagnostic techniques**	**Theoretical and practical**	Quiz + Attendance
16	2th +2p	The student gets to know	**Cell and tissue culture**	**Theoretical and practical**	Quiz + Attendance
18-17	2th +2p	The student gets to know	**Molecular diagnostic techniques**	**Theoretical and practical**	Quiz + Attendance
19	2th +2p	The student gets to know	**Biochemistry**	**Theoretical and practical**	Quiz + Attendance
22-21-2	2th +2p	The student gets to know	**Cell homogenisation and fractionation**	**Theoretical and practical**	Quiz + Attendance

25-24-2	2th +2p	The student gets to know	**Separation techniques**	**Theoretical and practical**	Quiz + Attendance
28-27-2	2th +2p	The student gets to know	**Enzyme kinetic Monitoring techniques**	**Theoretical and practical**	Quiz + Attendance
29-30	2th +2p	The student gets to know	**Enzyme assay techniques**	**Theoretical and practical**	Quiz + Attendance

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

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Diagnostic Criteria in generals practical's laboratory techniques**
Main References (sources)	**Stevens practical's immunology and serology : a laboratory perspective / Christine Dorresteyn Stevens. — 3rd ed. Mary Louise Turgeon. 2014.IMMUNOLOGY & SEROLOGY IN LABORATORY MEDICINE 4th ed.**
Recommended Books & References (Scientific Journals, Reports …)	**Journal of medical laboratory technology in general objective.**
Websites or Electronic References	**http://www.healthline.com/health/ practiacals**

جامعة البيان

Course Description (8)

1. Course Title	Computer application
2. Course Code	0201321
3. Semester/Year	courses
4. Description Preparation Date	2024\3\29
5. Available Attendance Form	Face to face attendance
6. No. of Hours (Total)	(60 Theoretical + 60 Practical)
7. No. of Credits (Total)	4
8. Course Administrator Name	Lecturer Mahmood Hameed Majeed
9. E-mail	Mahmood.h@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	The student gets to know the Excel program -
	A2	The student learns how to deal with the jobs raised by this program -
	A3	The student learns about the most important mathematical operations that can be applied in this progran
	A4	The student learns how to copy data from multiple cells and the paste options available
Skills	**B1**	The student acquires the skill of dealing with the most important functions provided by the Excel progra
	B2	The student acquires the skill of controlling the display of cells and changing their style and format through tools -
	B3	The student acquires the skill of descriptive analysis of data using the SPSS program
	B4	The student acquires the skill of using ready-made functions provided by the Excel program to carry operations -
Values	**C1**	Learn how to open calculator programs and deal with files, including storing, opening, editing, and loc data
	C2	Learn how to use Excel & Power Point. Learn how to use the famous statistical program SPSS
	C3	Learn how to open calculator programs and deal with files, including storing, opening, editing, and loc data
	C4	The most important components of a computer and how to deal with them

11. Teaching and Learning Strategies

1.	Through lecture, clarification methods, giving electronic assignments, and interacting within the electronic platform	**4.**	Short exams, quizzes, quarterly and annual exams

2.	Theoretical and practical lectures	**5.**	Apply, implement, and then evaluate the implementation
3.	- Applying the theoretical material in a practical manner electronically by using Google Sheet	**6.**	Short exams, quizzes, quarterly and annual exams

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1-15	45	excel	Excel program: Learn about the concept of the program, its benefits, specifications, features, and methods operation -Get to know the main screen and components, and how it contains var menus and effective tools -The concept of the cell, basic data types how to enter them -How to save the work sheet or work book, close the program, close the file. -Open the saved file, enter data and perf calculations, learn how to adjust or format data and structure it within a single cell or group of cells. -Learn about ways to collect data or group cells in their different forms, as well as how to sort data -Use some of the functions provided by program such as max, min, sum, ave, sqrt, count and other useful related statistical functions. -Learning about the editing process provi by the program, how to copy data or transfer data, and learning about the con of copying mathematical operations, as as the concept of relative cells and absolute cells. -Control the cell width: change its style format by using formatting tools.	Lecture and other explanation	Quiz and exam

			-Dealing with charts and how to con digital and textual data into charts of var types through the chart wizard (chat wiza and learning how to make the modificat and revisions provided by the program. -Learn how to add or delete rows or colu on a work page and how to print digital or charts		
16-25	30	spss	The statistical program (ssps), the concep the program, its operation, and the step data analysis - Identify the components of the main scr enter data, save and retrieve data, type data (direct or calculated) -Sort and exchange data, determine statistical procedure through the statis topics that the student addresses in statis lessons. -How to insert a variable or case, merge f analytical analysis, descriptive statistics Identify the statistical summary of the g data and benefit from the data it provide exploring data or reports for columns or r - Performing comparison of avera comparison between variables or regressi - Conduct some non-parametric tests, suc chi square. -Applications of quality control panels. -Dealing with charts, such as	Lecture and other explanation	Quiz and exam
26-30	15	Power point	Power Point program: the concept of program and its benefits, its operation, components of the main screen, the con of presentations and its benefits. - Build a new presentation through templates provided by the program, or directly, store the presentation, perform presentation, make modifications, and the changes.	Lecture and other explanation	Quiz and exam

			-Planning the structure of the presentat inserting a new slide, whether it contains or an image, entering notes, entering main titles. -headers) or (footers) of the slide -Learn how to add drawings using available drawing tools, modify the text, control its shape and layout, change plan, control the colors and background of the slide. - Adding a clip chart and ways to contro such as zooming in, zooming out or cropping, adding natural images and tools to control them, adding sound effects to slides.		

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	There is no approved textbook for attending lectures and taking notes Illustrations and lectures prepared for this purpose
Main References (sources)	1- John Walkenbach," Microsoft Excel 2016 BIBLE", John Wily & sons, 2015. 2- Curtis Fry, " Microsoft Excel 2016 step by step", Microsoft press,
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	https://courses.corporatefinanceinstitute.com/courses/free-excel-crash-course-for-finance?gclid=CjwKCAjwndCKBhAkEiwAgSDKQVbWDMZ3L4p6byNsvx9SXq00QovfoXfkBQdC9FkdOQOdV7pn3FdRlBoCufwQAvD_BwE

جامعة البيان

Course Description (1)

1. Course Title		Clinical Immunology
2. Course Code		0201423
3. Semester/Year		Semester 1&2 /4th stage/ 2023-2024
4. Description Preparation Date		2\mar.\2024
5. Available Attendance Form		face to face learning
6. No. of Hours (Total)		(60 Theoretical + 60 Practical)
7. No. of Credits (Total)		8
8. Course Administrator Name		Hayder Ahmed Kadhim
9. E-mail		Hayder.a@albayan.edu.iq
10. Course Objectives		
Knowledge	**A1**	Knowledge and Understanding
	A2	Gaining experience in performing immunoassays
	A3	Gaining experience in the work of modern equipment
	A4	Dealing with various advanced laboratory analyzes
Skills	**B1**	Subject-specific skills
	B2	Training to use the equipment
	B3	making reports
	B4	Research work
Values	**C1**	Develop the student's ability to work with devices
	C2	Develop the student's ability to use modern laboratory equipment and techniques
	C3	Develop the student's ability to dialogue and debate

	C4	Develop the student's ability to research

11. Teaching and Learning Strategies

1.	The discussion	**4.**	Field visits to educational laboratories
2.	daily exams	**5.**	
3.	Directing students to some websites related to the scientific subject	**6.**	

12. The Structure of the Course

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Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2th +2p	autoimmune diseases Rheumatoid arthritis	Rheumatoid Arthritis	theoretical & practical	Daily exam and direct questions
2	2th +2p	lupus erythematosus Its causes, origin and treatment	Systemic Lupus Erythmatosus	theoretical & practical	Daily exam and direct questions
3	2th +2p	Learn about spondylitis	Ankylosing Spondylitis	theoretical & practical	Daily exam and direct questions
4	2th +2p	Sjogren's Syndrome	Sjogren's Syndrome	theoretical & practical	Daily exam and direct questions
5	2th +2p	bread allergy	Gluten sensitive entero-pathy	theoretical & practical	Daily exam and direct questions
6	2th +2p	Anemia	Pernicious Anemia	theoretical & practical	Daily exam and direct questions
7	2th +2p	Diabetes mellitus	Diabetes mellitus	theoretical & practical	Daily exam and direct questions
8	2th +2p	T Lymphocytes	T Lymphocyte mediated Renal Injury	theoretical & practical	Daily exam and direct questions
9	2th +2p	Ulcerative Colitis	Ulcerative Colitis	theoretical & practical	Daily exam and direct questions
10	2th +2p	Crohn's Disease	Crohn's Disease	theoretical & practical	Daily exam and direct questions
11	2th +2p	Mucosa-associated lymphoid tissue	Mucosa-associated lymphoid tissue lymphoma and Helicobacter pylori associated diseases	theoretical & practical	Daily exam and direct questions
12	2th +2p			theoretical & practical	Daily exam and direct questions
13	2th +2p			theoretical & practical	Daily exam and direct questions
14	2th +2p			theoretical & practical	Daily exam and direct questions
15	2th +2p			theoretical & practical	Daily exam and direct questions
16	2th +2p	Autoimmune Hepatitis diseases	Autoimmune Hepatitis	theoretical & practical	Daily exam and direct questions
17	2th +2p			theoretical & practical	Daily exam and direct questions
18	2th +2p			theoretical & practical	Daily exam and direct questions
19	2th +2p			theoretical & practical	Daily exam and direct questions
20	2th +2p	Eosinophilic Pneumonias	Eosinophilic Pneumonias	theoretical & practical	Daily exam and direct questions
21	2th +2p			theoretical & practical	Daily exam and direct questions
22	2th +2p	Asthma Hypersensitivity Diseases	Asthma Hypersensitivity Diseases	theoretical & practical	Daily exam and direct questions
23	2th +2p			theoretical & practical	Daily exam and direct questions
24	2th +2p			theoretical & practical	Daily exam and direct questions

25	2th +2p			theoretical & practical	Daily exam and direct questions
26	2th +2p	Thyroid immune activity	Endocrinology Immunological Thyroid Diseases , Immunological Infertility a	theoretical & practical	Daily exam and direct questions
27	2th +2p			theoretical & practical	Daily exam and direct questions
28	2th +2p			theoretical & practical	Daily exam and direct questions
29	2th +2p	immune gland diseases	Immunological Thyroid Diseases , Immunological	theoretical & practical	Daily exam and direct questions
30	2th +2p			theoretical & practical	Daily exam and direct questions

13. Course Evaluation	
The score out of 100 is based on the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Clinical immunology,2007 Review of medical microbioplogy and immunology, 2015
Main References (sources)	Clinical immunology,2007 Review of medical microbioplogy and immunology, 2015
Recommended Books & References (Scientific Journals, Reports …)	Kuby IMMUNOLOGY. Sixth Edition
Websites or Electronic References	Ncbi Research gate

جامعة البيان

Course Description (2)

1. Course Title	**Diagnostic bacteriology**
2. Course Code	**0201424**
3. Semester/Year	**yearly**
4. Description Preparation Date	**2/4/2024**
5. Available Attendance Form	**Lectures(Theory &Practical)**
6. No. of Hours (Total)	**(60Theoretical + 60 Practical)**
7. No. of Credits (Total)	**8**
8. Course Administrator Name	**Dr.Ghufran.h.Abed**
9. E-mail	**Ghufran.h@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Make the student known to medical diagnostic bacteriology, and the causes of it diseases.
	A2	
	A3	
	A4	
Skills	**B1**	Make the student how to diagnose the bacterial diseases and how to treatments.
	B2	
	B3	
	B4	
Values	**C1**	The student must have full knowledge of viral and fungal diseases and how to deal with them.
	C2	
	C3	
	C4	

11. Teaching and Learning Strategies

1.	Intellectual or mental education	**4.**	
2.	Collaborative co-education	**5.**	
3.	Blended learning	**6.**	

13. The Structure of the Course **12.**

Week	Hours Theory	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2th+2p	Diagnostic :Microbiology purpose and philosophy	Diagnostic Microbiology: purpose and philosophy	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
2	2th+2p	General safety considerations Biohazards and practices specific to microbiology in general	Laboratory safety	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
3	2th+2p	Managing the clinical microbiology laboratory effective patient care in acos t	Managing clinical microbiology laboratory effective patient car	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
4	2th+2p	Selection, collection, and transport of specimens for microbiological examination	Selection, collection, and transport of specimens for microbiological examination	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
5	2th+2p	-Optical methods for laboratory diagnosis of infectious diseases	Examination of fresh material	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
6	2th+2p	Preparation and characteristics of certain frequently used media	-Cultivation and isolation of viable	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
7	2th+2p	Microbiologic al methods for identification of microorganisms	Basic approaches to identification of pathogens	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
8	2th+2p	Rapid biochemical tests	API	Method of giving lectures	Oral &written exam.

				Discussion method Cooperative education	
9	2th+2p	Nontraditional methods for identification of pathogens or their products	Particle agglutination, ELISA, PCR, ……..etc.	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
10	2th+2p	-Antibiotic susceptibility tests	MIC	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
11	2th+2p	Methods for identification of etiological agents of infectious disease	Staphylococci -Streptococci -Neisseria -Enterobacteriaceae -Pseudomonas -Other bacteria	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
12	2th+2p	Enterobacteriaceae -Pseudomonas -Other bacteria	Enterobacteriaceae	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
13	2th+2p	Diagnosis by organ system Blood stream infections	General considerations	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
14	2th+2p	continuous	General considerations	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
15	2th+2p	Meningitis and other infections of the central nervous system	General considerations	Method of giving lectures Discussion method Cooperative education	Oral &written exam.

16	2th+2p	continuous	Laboratory diagnosis Meningit	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
17	2th+2p	Infection of the respiratory tract	General consideration, anatomy and normal state of respiratory tract	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
18	2th+2p	continuous	continuous	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
19	2th+2p	Infection of the urinary tract	General considerations	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
20	2th+2p	continuous	continuous	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
21	2th+2p	Genital tract infections	Sexually transmitted diseases and other genital tract infections	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
22	2th+2p	continuous	continuous	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
23	2th+2p	Gastrointestinal tract infections	General considerations	Method of giving lectures Discussion method Cooperative education	Oral &written exam.

24	2th+2p	continuous	continuous	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
25	2th+2p	Infections of the eyes, ears and sinuses	Anatomy --Resident microbial flora	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
26	2th+2p	-General considerations	Skin, Soft tissue and wound infections	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
27	2th+2p	-Specimens from sterile body sites	Normal sterile body fluids, bone and bone marrow and solid tissue	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
28	2th+2p	-Specimen collection and transport	Laboratory methods diagnosis parasitic infections	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
29	2th+2p	Collection, and transport of clinical specimens	-Laboratory methods in basic mycology	Method of giving lectures Discussion method Cooperative education	Oral &written exam.
30	2th+2p	Specimen selection and collection	Laboratory methods in basic virology	Method of giving lectures Discussion method Cooperative education	Oral &written exam.

14. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
15. Learning & Teaching Resources	
Required textbooks (curricular if any)	Jawetz, R., J.L. Melnick, and E.A. Adelberg,(2019). Review of Medical
Main References (sources)	Review of Medical Microbiology and Immunology. Warren Levinson, 12th May 2012. Mc Graw-Hill (Lange). Microbiology, Twenty-Eighth Edition Edition,. Christopher J. Burrell, ... Frederick A. Murphy, in Fenner and White's Medical Virology (Fifth Edition), 2017
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	https://hmt.mtu.edu.iq/e-learning/

جامعة البيان

Course Description (3)

1. Course Title	**Clinical chemistry**
2. Course Code	**0201425**
3. Semester/Year	**2023-2024**
4. Description Preparation Date	**04/04/2024**
5. Available Attendance Form	**Attendance in the classroom in addition to e-learning**
6. No. of Hours (Total)	**(60 Theoretical + 60 Practical)**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Dr. Samar Thamer Hameed**
9. E-mail	**Samar.thamer@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**The Advanced Clinical Chemistry course is concerned w security and safety procedures within the laboratory and how deal with hazardous materials**
	A2	**Learn about laboratory quality laws**
	A3	**Particular emphasis on examinations of some organs related biochemical compounds**
	A4	**Introducing important experiments using modern technologies laboratory diagnosis, giving the student a new opportunity learn about specific tests**
Skills	**B1**	**The student should be able to acquire basic knowledge and ski in clinical chemistry**
	B2	**Teaching the student how to become able to think logical analyze, and employ the prescribed curriculum vocabulary.**
	B3	**Developing the student's mental and personal ability in t specialty is an important part of his field of specialization**
	B4	**Providing the student with communication skills and usi modern educational technologies effectively.**
Values	**C1**	**The student should be able to work collaboratively a individually to conduct clinical chemistry analyses**
	C2	**The student should be able to use information technology search for information**

	C3	The student should be able to communicate with the profess and colleagues
	C4	The student must be able to rely on himself

11. Teaching and Learning Strategies

1.	Providing an appropriate educational climate for logical thinking through continuous guidance of students during lectures	4.	Use the display screen to lecture and the blackboard.
2.	Opening the door for open and direct discussions with students	5.	Visit the library
3.	Follow a cooperative learning strategy	6.	Directing the student to websites to benefit from them

Theoretical and practical vocabulary

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1&2	4	A1, A3, A4, B1, B2, B3, B4, C1, C2, C C4	Laboratory Safety: 1- Safety awareness of persons and safety equipments. 2- Chemical safety. 3- Biological safety . 4- fire safety and control of other hazards. 5- Disposal of hazardous materials.	Gain information about occupational safety	Oral questions
3	2	A3, A4, B1, B2, B3, B4, C1, C2, C3, C	Requesting lab .results Classification of request card in laborato interpretation of selective test &screening	Know the ideal form for requesting laboratory tests a the results form	solving equations
4	2	A3, A4, B1, B2, B3, B4, C1, C2, C3, C	1- Specimen collection (urine, blood, faeces, cerebrospinal fluid and other body fluids). 2- Specimen Handling (maintenance of identification, preservation, separation, storage and transport of specimens	How to collect samples	solving equations
5,6,7	6	A2, A3, A4, B1, B2, B3, B4, C1, C2, C C4	Quality Management: 1- Fundamentals of total quality management. 2- The total testing process. 3- Control of preanalytical variables. 4- Control of analytical variables. 5- External quality assessment	Knowledge of the basics o laboratory quality	solving equations
8,9,10,11,12	10	A1, A2, A3, A4, B1, B2, B3, B4, C1, C C3, C4	Advanced technique in clinical chemistry	Learn about advanced techniques related to clinic chemistry	Written exam

13,14	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C C3, C4	Computers in clinical chemistry	Learn about modern techniques in advanced clin chemistry	solving equations
15,16,17,18	8	A1, A2, A3, A4, B1, B2, B3, B4, C1, C C3, C4	Pediatric clinical chemistry	Knowing the concentrations some substances related t clinical chemistry in childre	Discussions
19,20,21	6	A1, A2, A3, A4, B1, B2, B3, B4, C1, C C3, C4	Functional tests in clinical chemistry ar profile tests investigations	Knowledge of routine tests evaluate organ functions	Oral questions and discussions
22	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C C3, C4	Problems in biochemistry calculation	How to solve arithmetic problems	Oral questions and discussions
23,up	16	A1, A2, A3, A4, B1, B2, B3, B4, C1, C C3, C4	Case studies in clinical chemistry	Knowledge of routine tests evaluate medical conditior	Oral questions and discussions

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Peter Rae - Clinical Biochemistry Lecture Notes (2018, John Wiley & Sons Ltd)
Main References (sources)	Michael L. Bishop, Clinical Chemistry: Principles, Techniques, and Correlations, NINTH EDITION2023
Recommended Books & References (Scientific Journals, Reports …)	Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, 9th Edition
Websites or Electronic References	https://www.sciencedirect.com/ https://pubmed.ncbi.nlm.nih.gov/

جامعة البيان

Course Description (4)

1. Course Title	Parasitology
2. Course Code	0201426
3. Semester/Year	**Year**
4. Description Preparation Date	2024-3-29
5. Available Attendance Form	**In-person lecture+ online**
6. No. of Hours (Total)	**(60 Theoretical + 60 Practical)**
7. No. of Credits (Total)	**8**
8. Course Administrator Name	**Dr. safa tawfeeq whqeeb**
9. E-mail	safa.tawfeeq@albaya.edu.iq

10. Course Objectives

Knowledge	**A1**	Knowledge of the parasite's appearance, life cycle, and pathogenesis.
	A2	Diagnose all parasites of medical importance.
	A3	Identify the epidemiology of parasites with special reference to those endemic to Iraq.
	A4	Control and prevent the spread of disease
Skills	**B1**	Teaching the use of a microscope and diagnosing the stages of parasites
	B2	Teaching modern techniques in diagnosis
	B3	
	B4	
Values	**C1**	Participation in seminars and conferences held inside and outside the college
	C2	Motivating students to expand their thinking by making posters and scientific research
	C3	Develop skills to solve problems that hinder student understanding
	C4	Holding periodic seminars for students to exchange information, raise the level thinking, and enhance self-confidence

11. Teaching and Learning Strategies

1.	Education through pictures presentation	**4.**	
2.	Education through video presentation	**5.**	
3.	Education via online	**6.**	

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2th+2p	Medical Parasitology 1	Recent classification of parasite Systematic grouping of parasites General terms used in parasitology	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
2	2th+2p	Medical Parasitology 1	rategies for diagnosis of parasitic infection Collection and transport of specimens for ctors interfering for all *enteric pathogens types of stool collection *Precaution in the procedure of collectio specimens	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
3	2th+2p	Medical Parasitology 1	Examination of stool sample a) Macroscopic examination of stool b) Microscopic examination of wet mounts	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
4	2th+2p	Medical Parasitology 1	Preparation of solutions for wet mount; the advantages and disadvantages :of each solution Saline solution Iodine solutions Eosin solution	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz- Monthly exam
5	2th+2p	Medical Parasitology 1	eparation of preservatives and fixatives for mounted slides (%7-5) Formalin solution PVA (Polyvinyle alcohol) as fixative Schaudinns fixative	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
6	2th+2p	Medical Parasitology 1	Laboratory diagnosis of enteric protozoa *The routine methods used in laboratory diagnosis	Theoretical and practical	-Through questions during lecture

					-The student participates explaining a topic - The Quiz - Monthly exam.
7	2th+2p	Medical Parasitology 1	Concentration methods; types, purpose to concentration methodes	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
8	2th+2p	Medical Parasitology 1	Application of immunological methods in diagnosis of parasite in general * Detectio antibodies in serum of patients with enteric protozoa (ELISA) * Detection antigens in stool specimen of patients with enteric protozoa (ELISA)	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
9	2th+2p	Medical Parasitology 1	Differentiation of pathogenic Entamoebahistolytica and the morphologically identical non pathogenic Entamoebadispar using immunological assays.	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
10	2th+2p	Medical Parasitology 1	The application of molecular assays in diagnosis ofparasites	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
11	2th+2p	Medical Parasitology 1	Free living pathogenic amoeba Naegleriafowleri&Acanthamoeba Morphology, habitat, mode of infect infective stage, life cycle and labora diagnosis	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
12	2th+2p	Medical Parasitology 1	Blastocystishominis as the causative agen irritable bowel syndrome Morphology of forms, habitat, mode of infection, infective stage and laboratory diagnosis	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz

					- Monthly exam.
13	2th+2p	Medical Parasitology 1	Tissue flagellates e.gGenus Trypanosoma&Genus Leishmania Laboratory diagnosis; routine methods, immunological Assays molecular assays	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
14	2th+2p	Medical Parasitology 1	Properties of ideal vaccines.leishmania Vaccine in trail	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
15	2th+2p	Medical Parasitology 1	Phylum Apicomlexa; Main properties of group, ultrastructure of the apical comlex	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
16	2th+2p	Medical Parasitology 1	First term examination	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
17	2th+2p	Medical Parasitology 1	Intestinal coccidian e.g Cryptosporid parvum Morphology, habitat, mode infection, infective stage, lifecycle laboratory diagnosis with special emphasis on Ziehl-Neelsen technique	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
18	2th+2p	Medical Parasitology 1	Extra-intestinal coccidian e.g.Toxoplasma gondiiBrief lecture morphology, habitat, modes of infection,infective stages, cycle	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
19	2th+2p	Medical Parasitology 1	Methods of laboratorydiagnosis includes: Direct detection of the	Theoretical and practical	-Through questions during lecture

			parasite; Serological methods& Molecular assays		-The student participates explaining a topic - The Quiz - Monthly exam.
20	2th+2p	Medical Parasitology 1	Genus Plasmodium; Terms used in malaria& Life cycle	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
21	2th+2p	Medical Parasitology 1	Methods of laboratory diagnosis includ Preparation and detection of parasite in thick and thin blood Smears - Preparation Geimsa and leishman stains – Quantitative Buffy Coat (QBC) test - microscopic test - Rapid Diagnostic Tests (RDTs)	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
22	2th+2p	Medical Parasitology 1	Introduction to Helminths Classification helminthes into: Phylum Platyhelminths which includes; Class Cestoda& Class Trematoda	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
23	2th+2p	Medical Parasitology 1	General characters of: Platyhelminths& Class Cestoda	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic- The Quiz - Monthly exam.
24	2th+2p	Medical Parasitology 1	Genus Taenia including Taeniasaginata soluim Morphology, habitat, mode of infect infective stage, life cycle and laboratory diagnosis;differentiate between both species in labrotory	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
25	2th+2p	Medical Parasitology 1	EchinococcusgranulosusShort notes on parasite with special emphasis on the methods of diagnosis (detection certain Ag)	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz

					- Monthly exam.
26	2th+2p	Medical Parasitology 1	Genus Schistosoma in general with emphasis on the species endemic in Schistosomahaematobium the use of special technique in the examination of urine sample (filtration by Schisto-kit) as direct method andimmunoblot as indirect method	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
27	2th+2p	Medical Parasitology 1	Second term examination	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
28	2th+2p	Medical Parasitology 1	Phylum Nemathelminths in general Short notes on; Ascarislumbricoides, Enterobiusvermicularis, Ancylostomaduodenale, Strongyloidesstercoralis	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
29	2th+2p	Medical Parasitology 1	Modified Kato-Katis technique examination of thick smear, application of anal swab for pin worm	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.
30	2th+2p	Medical Parasitology 1	Haradi-Mori technique for cultivation of hook worm and detection of rhabditiformand filariform larvae	Theoretical and practical	-Through questions during lecture -The student participates explaining a topic - The Quiz - Monthly exam.

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Paniker's Textbook of Medical Parasitology**
Main References (sources)	**Paniker's Textbook of Medical Parasitology**
Recommended Books & References (Scientific Journals, Reports …)	**Evolutionary Parasitology** Textbook of Medical Parasitology
Websites or Electronic References	Any good research and good websites

Course Description (5)

1. Course Title	**Blood transfusion**
2. Course Code	**0201427**
3. Semester/Year	**annual**
4. Description Preparation Date	**2024\3\28**
5. Available Attendance Form	**Official attendance time (morning and evenin**
6. No. of Hours (Total)	**60 hours for the theoretical aspect and 60 hou for the practical aspect**
7. No. of Credits (Total)	**8 units**
8. Course Administrator Name	**Assistant Lecturer Ali Saad Kazem**
9. E-mail	**ali.saad@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Teaching students about the blood group systems in the human body and how to prevent giving mismatched blood
	A2	Study of blood types, antigens, antibodies, immune reactions, control of immune diseases, immunizations, and immunodiagnostic.
	A3	The program aims to provide students with the necessary skills to work in the fields of health care, scientific research, technological development, education and training.
	A4	Teaching students the mechanism of blood donation and how to store blood units in the blood bank
Skills	**B1**	Scientific reports
	B2	Daily exams
	B3	Monthly tests
	B4	Practical examinations
Values	**C1**	Participation in the classroom
	C2	Provide activities
	C3	Semester and final tests and activities
	C4	Self-learning, discussion panels

11. Teaching and Learning Strategies

1.	**Active participation in the classroom is evidence of the student's commitment and responsibility**	**4.**	**Developing the student's ability to deal with multiple media.**

2.	**Adherence to the specified deadline for submitting assignments and research.**	**5.**	**Active participation in the classroom is evidence of the student's commitment and responsibility**
3.	**Semester and final exams express commitment and cognitive and skill achievement.**	**6.**	**Developing the student's ability to deal with technical means**

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2 theory 2 practi.	The way out in theory The way out in practice	Blood Transfusion	presence	Daily, monthly and annual written exam
2	2 theory 2 practi.	The way out in theory The way out in practice	Blood Transfusion	presence	Daily, monthly and annual written exam
3	2 theory 2 practi.	The way out in theory The way out in practice	Blood donation	presence	Daily, monthly and annual written exam
4	2 theory 2 practi.	The way out in theory The way out in practice	Selection of donation	presence	Daily, monthly and annual written exam
5	2 theory 2 practi.	The way out in theory The way out in practice	General Donor assessment	presence	Daily, monthly and annual written exam
6	2 theory 2 practi.	The way out in theory The way out in practice	The Human Blood Group	presence	Daily, monthly and annual written exam
7	2 theory 2 practi.	The way out in theory The way out in practice	The Human Blood Group	presence	Daily, monthly and annual written exam
8	2 theory 2 practi.	The way out in theory The way out in practice	AIDS and Blood Transfusion	presence	Daily, monthly and annual written exam
9	2 theory 2 practi.	The way out in theory The way out in practice	Complication of blood transfusion	presence	Daily, monthly and annual written exam
10	2 theory 2 practi.	The way out in theory The way out in practice	Complication of blood transfusion	presence	Daily, monthly and annual written exam
11	2 theory 2 practi.	The way out in theory The way out in practice	Haemolytic Anaemias	presence	Daily, monthly and annual written exam

12	2 theory 2 practi.	The way out in theory The way out in practice	Haemolytic Anaemias	presence	Daily, monthly and annual written exam
13	2 theory 2 practi.	The way out in theory The way out in practice	Types of Anticoagulants used hematology	presence	Daily, monthly and annual written exam
14	2 theory 2 practi.	The way out in theory The way out in practice	Types of Anticoagulants used hematology	presence	Daily, monthly and annual written exam
15	2 theory 2 practi.	The way out in theory The way out in practice	Autologous Blood Transfusion (AI	presence	Daily, monthly and annual written exam
16	2 theory 2 practi.	The way out in theory The way out in practice	Autologous Blood Transfusion (AI	presence	Daily, monthly and annual written exam
17	2 theory 2 practi.	The way out in theory The way out in practice	Platelets Disorders	presence	Daily, monthly and annual written exam
18	2 theory 2 practi.	The way out in theory The way out in practice	Platelets Disorders	presence	Daily, monthly and annual written exam
19	2 theory 2 practi.	The way out in theory The way out in practice	Acquired bleeding disorders	presence	Daily, monthly and annual written exam
20	2 theory 2 practi.	The way out in theory The way out in practice	Homeostasis and bleeding disord	presence	Daily, monthly and annual written exam
21	2 theory 2 practi.	The way out in theory The way out in practice	Blood Transfusion	presence	Daily, monthly and annual written exam
22	2 theory 2 practi.	The way out in theory The way out in practice	Blood Transfusion	presence	Daily, monthly and annual written exam
23	2 theory 2 practi.	The way out in theory The way out in practice	Blood donation	presence	Daily, monthly and annual written exam
24	2 theory 2 practi.	The way out in theory The way out in practice	Selection of donation	presence	Daily, monthly and annual written exam
25	2 theory 2 practi.	The way out in theory The way out in practice	General Donor assessment	presence	Daily, monthly and annual written exam

26	2 theory 2 practi.	The way out in theory The way out in practice	The Human Blood Group	presence	Daily, monthly and annual written exam
27	2 theory 2 practi.	The way out in theory The way out in practice	The Human Blood Group	presence	Daily, monthly and annual written exam
28	2 theory 2 practi.	The way out in theory The way out in practice	AIDS and Blood Transfusion	presence	Daily, monthly and annual written exam
29	2 theory 2 practi.	The way out in theory The way out in practice	Complication of blood transfusion	presence	Daily, monthly and annual written exam
30	2 theory 2 practi.	The way out in theory The way out in practice	Complication of blood transfusion	presence	Daily, monthly and annual written exam

13. Course Evaluation
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Blood Transfusion principal book
Main References (sources)	Articles
Recommended Books & References (Scientific Journals, Reports …)	Many papers about blood transfusion
Websites or Electronic References	Wikipedia, research gate, google scholar, and many

جامعة البيان

Course Description (6)

1. Course Title	Histopathology
2. Course Code	0201428
3. Semester/Year	**Year**
4. Description Preparation Date	**1/4/2024**
5. Available Attendance Form	**Lectures and practical sessions**
6. No. of Hours (Total)	**60 hours (theory)** **60 hours (practical)**
7. No. of Credits (Total)	7
8. Course Administrator Name	**Dr. Ahmed Turki Hani**
9. E-mail	**ahmedt@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Learn the students the gross structure of human organs.
	A2	Provide the students with the skills of managements and solving problems during pract training.
	A3	Learn the student to understand the diseases in different body systems
	A4	Make the student correlate his knowledge with the clinical problem solving.
Skills	**B1**	
	B2	
	B3	
	B4	
Values	**C1**	identification and handling in anatomical pathology.
	C2	Acquire the necessary skills required in the preparation of slides for microscopic examination.
	C3	Demonstrate a general knowledge of the principles and procedures involved in the collection specimens from different body systems.
	C4	

11. Teaching and Learning Strategies

1.		**4.**	
2.		**5.**	
3.		**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2th+2p		Lung (atelectasias, acute lung injury)	Data show and white board	Quiz and homework
2	2th+2p		Lung (chronic bronchitis pulmona embolism)	Data show and white board	Quiz and homework
3	2th+2p		Lung tumors	Data show and white board	Quiz and homework
4	2th+2p		Kidney (glomercular disease)	Data show and white board	Quiz and homework
5	2th+2p		Kidney (nephrotic syndron IgA nephropathy (Berger disease)	Data show and white board	Quiz and homework
6	2th+2p		Kidney tumors	Data show and white board	Quiz and homework
7	2th+2p		Cancer of the oral cavity and tongue	Data show and white board	Quiz and homework
8	2th+2p		Esophagus (lacivation, varices, esophageal carcinoma)	Data show and white board	Quiz and homework
9	2th+2p		Stomach (gastritis, ulcer, carcinoma)	Data show and white board	Quiz and homework
10	2th+2p		Large intestines (hemorrhoids,	Data show and white board	Quiz and homework

			malabsorption syndrome)		
11	2th+2p		Crohn disease	Data show and white board	Quiz and homework
12	2th+2p		Large intestines tumors	Data show and white board	Quiz and homework
13	2th+2p		Liver (hepatic infection, failure, cirrhosis)	Data show and white board	Quiz and homework
14	2th+2p		Hepatic tumors	Data show and white board	Quiz and homework
15	2th+2p		Gall bladder (cholecystitis, tumors)	Data show and white board	Quiz and homework
16	2th+2p		Pancreas (pancreatitis)	Data show and white board	Quiz and homework
17	2th+2p		Pancreatic neoplasma	Data show and white board	Quiz and homework
18	2th+2p		Male genital system (testicular atrophy, lesions, neoplasma)	Data show and white board	Quiz and homework
19	2th+2p		Male genital system (prostatis, tumors)	Data show and white board	Quiz and homework
20	2th+2p		Female genital system (cervicitis, tumor of the cervix)	Data show and white board	Quiz and homework
21	2th+2p		Uterus (endometritis, endometriosis, tumor of the uterus)	Data show and white board	Quiz and homework

22	2th+2p		Breast (fibrocystic chang tumors of the breast)	Data show and white board	Quiz and homework
23	2th+2p		Endocrine system (hyperpituitarism and pituitary adenoma)	Data show and white board	Quiz and homework
24	2th+2p		Thyroid (thyroiditis, thyroid neoplasma)	Data show and white board	Quiz and homework
25	2th+2p		Bone tumors	Data show and white board	Quiz and homework
26	2th+2p		Skin (acute eczematous dermatitis, psoriasis)	Data show and white board	Quiz and homework
27	2th+2p		Skin tumors	Data show and white board	Quiz and homework
28	2th+2p		Nervous system (brain tumor)	Data show and white board	Quiz and homework
29	2th+2p		Nervous system (diseases the peripheral nervous system)	Data show and white board	Quiz and homework
30	2th+2p		Multiple sclerosis and other neuronal disorders	Data show and white board	Quiz and homework

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

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Robbins and Cotran Pathologic Basis of Disease**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (7)

1. Course Title	**English language**
2. Course Code	**0201431**
3. Semester/Year	**First and second semester / 2023-2024**
4. Description Preparation Date	**1-4-2024**
5. Available Attendance Form	**Presence**
6. No. of Hours (Total)	**60 Hours Annually**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Dr. Hamida Tomas Jasim**
9. E-mail	**Sahartomas82@gmail.com**

10. Course Objectives

Knowledge	**A1**	Knowledge of specific academic subjects.
	A2	Improve written skills through practice of writing descriptions, reports and other subject specific texts
	A3	
	A4	
Skills	**B1**	Enable students to communicate more confidently and effectively in their work or study environment.
	B2	
Values	**C1**	Assigning a specific grade to the student's activity and participation in the English lesson .
	C2	Testing the student through the quarterly exam

11. Teaching and Learning Strategies

1.	**Quizzes**	**4.**	
2.	**Lectures**	**5.**	
3.	**Using Datashow to explain the lessons**	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Acquire knowledge	**Reviewing + reading**	Theoretical explanation	Attendance + quize
2	2	Acquire knowledge	**Verbes and tenses**	Theoretical explanation	Attendance + quize
3	2	Acquire knowledge	**Continuous past Verb Tense**	Theoretical explanation	Attendance + quize
4	2	Acquire knowledge	**Continuous Present Verb Tense**	Theoretical explanation	Attendance + quize
5	2	Acquire knowledge	**Continuous Future**	Theoretical explanation	Attendance + quize
6	2	Acquire knowledge	**Reading + Giving Oral Presentations**	Theoretical explanation	Attendance + quize
7	2	Acquire knowledge	**Conjunction tools**	Theoretical explanation	Attendance + quize
8	2	Acquire knowledge	**Quiz Question**	Theoretical explanation	Attendance + quize
9	2	Acquire knowledge	**Perfect past**	Theoretical explanation	Attendance + quize
10	2	Acquire knowledge	**Perfect present**	Theoretical explanation	Attendance + quize
11	2	Acquire knowledge	**Perfect future**	Theoretical explanation	Attendance + quize
12	2	Acquire knowledge	**Exercise application**	Theoretical explanation	Attendance + quize
13	2	Acquire knowledge	**Identify some common mistakes in English**	Theoretical explanation	Attendance + quize
14	2	Acquire knowledge	**English communication + reading passages**	Theoretical explanation	Attendance + quize
15	2		**Final exam**		
16	2	Acquire knowledge	**Continuous perfect past**	Theoretical explanation	Attendance + quize
17	2	Acquire knowledge	**Continuous perfect present**	Theoretical explanation	Attendance + quize
18	2	Acquire knowledge	**Much and Many**	Theoretical explanation	Attendance + quize
19	2	Acquire knowledge	**Prepositions on, in and at**	Theoretical explanation	Attendance + quize
20	2	Acquire knowledge	**Continuous perfect future**	Theoretical explanation	Attendance + quize

21	2	Acquire knowledge	**Exercise application**	Theoretical explanation	Attendance + quize
22	2	Acquire knowledge	**Quiz Question**	Theoretical explanation	Attendance + quize
23	2	Acquire knowledge	**Explaining Other, Another and Others**	Theoretical explanation	Attendance + quize
24		Acquire knowledge	**How to Write a Paper I**	Theoretical explanation	Attendance + quize
25		Acquire knowledge	**As, Because, Since**	Theoretical explanation	Attendance + quize
26		Acquire knowledge	**English communication + reading passages**	Theoretical explanation	Attendance + quize
27		Acquire knowledge	**Few and fewer+ Exercise**	Theoretical explanation	Attendance + quize
28		Acquire knowledge	**Passive voice**	Theoretical explanation	Attendance + quize
29		Acquire knowledge	**Making question in English**	Theoretical explanation	Attendance + quize
30			**Final exam**		

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

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	New Headway advanced
Main References (sources)	New headway advanced student's Book
Recommended Books & References (Scientific Journals, Reports …)	New headway advanced student's Book 5th edition 2019 New headway advanced teacher's Guide 5th edition 2019
Websites or Electronic References	**https://www.academia.edu**

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Course Description (8)

1. Course Title	**Professional Ethics**
2. Course Code	0201432
3. Semester/Year	**Semester**
4. Description Preparation Date	2024-3-29
5. Available Attendance Form	**In-person lecture**
6. No. of Hours (Total)	**30 Theoretical**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Dr.Ghufran.h.Abed**
9. E-mail	**Ghufran.h@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Provide the student with the appropriate method for dealing with patients, devices and equipment in the f of work
	A2	
	A3	
	A4	
Skills	**B1**	Teaching how to deal with patients or anyone with flexibility and avoid disagreements
	B2	
	B3	
	B4	
Values	**C1**	Participation in seminars and conferences held inside and outside the college
	C2	Motivating students to expand their thinking by making posters and scientific research
	C3	Develop skills to solve problems that hinder student understanding
	C4	Holding periodic seminars for students to exchange information, raise the level thinking, and enhance self-confidence

11. Teaching and Learning Strategies

1.	Education through pictures presentation	**4.**	
2.		**5.**	
3.		**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	**Professional Ethics**	Principles of professional ethics in stages of cultural developments	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
2	2	**Professional Ethics**	,Professional behavior, its concept Its practical applications	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
3	2	**Professional Ethics**	Types of employees and ways to deal with each type	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
4	2	**Professional Ethics**	Methods that the manager must Follow it to encourage the employee, motivate him to work, and increase his productivity	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz

					- Monthly exam.
5	2	**Professional Ethics**	Basic etiquette of the profession How to employ professional ethics from the position of guiding the individual's behavior, emotions, and ability to make the appropriate decision	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
6	2	**Professional Ethics**	Characteristics and qualities of health workers Appearance, behavior and commitment	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
7	2	**Professional Ethics**	For behavioral pattern, characteristics of behavioral pattern	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
8	2	**Professional Ethics**	Communication methods/linguistic and non-linguis their definition and types	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.

9	2	**Professional Ethics**	Exam	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
10	2	**Professional Ethics**	The art of listening and listening	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
11	2	**Professional Ethics**	Behavioral trends and tendencies Values, customs and traditions	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
12	2	**Professional Ethics**	Dealing with the patient: Receiving and dealing with the patient, maintaining professional secrets	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
13	2	**Professional Ethics**	Determine and maintain appointments and requirements on the patients needs	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic

					- The Quiz - Monthly exam.
14	2	**Professional Ethics**	Behavioral handling of medical devices and equipment	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.
15	2	**Professional Ethics**	Occupational safety and prevention of work risks	Theoretical 2	-Through questions during the lecture -The student participat in explaining a topic - The Quiz - Monthly exam.

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports .... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Medical Ethics**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	Any good research and good websites

جامعة البيان

Course Description (9)

1. Course Title	**Laboratory management**
2. Course Code	**0201430**
3. Semester/Year	2024/2023
4. Description Preparation Date	2024/3/29
5. Available Attendance Form	**Theoretical**
6. No. of Hours (Total)	**(60h) Theoretical**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Asst.Prof.Riad Abdulhussien Delool**
9. E-mail	Riad.delool@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	How to keep results accurate
	A2	Continuous development of the accuracy of pathological analysis results
	A3	Accuracy in selecting laboratory departments and their efficiency
	A4	Know how to deal with those requesting pathological analyzes
Skills	**B1**	How to deal scientifically with maintaining the efficiency of laboratories
	B2	Selecting the appropriate staff for laboratory management
	B3	**Maintaining sound relations between laboratory directors and scientific staff working in laboratory**
	B4	Pay attention to the maintenance and periodic inspection of devices to maintain them
Values	**C1**	Paying attention to graduating competent personnel for laboratories
	C2	Accuracy in reading analysis results
	C3	Periodic inspection of devices to ensure accuracy of readings
	C4	Maintaining appropriate relations between laboratory workers and management

11. Teaching and Learning Strategies

1.	**Trying to learn about international experiences in laboratory management**	**4.**	**Many short-term scientific missions**
2.	**Continuously developing the curriculum**	**5.**	**More tests to develop students' level**
3.	**Continuous review of international educational systems**	**6.**	**Continuous interaction with other universities to identify differences in teaching methods**

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2	**The student must be aware of information provided to him and extent of its application to reality**	Types of laboratories and their role in controlling infections	Theoretical applications	**Conducting tests to develop staff**
2	2	**The student must be aware of information provided to him and extent of its application to reality**	Types of laboratories and their role in controlling infections	Theoretical applications	**Conducting tests to develop staff**
3	2	**The student must be aware of information provided to him and extent of its application to reality**	Types of laboratories and their role in controlling infections	Theoretical applications	**Conducting tests to develop staff**
4	2	**The student must be aware of information provided to him and extent of its application to reality**	Laboratory management including Director, management level and planning	Theoretical applications	**Conducting tests to develop staff**
5	2	**The student must be aware of information provided to him and extent of its application to reality**	Laboratory management including Director, management level and planning	Theoretical applications	**Conducting tests to develop staff**
6	2	**The student must be aware of information provided to him and extent of its application to reality**	Laboratory management including Director, management level and planning	Theoretical applications	**Conducting tests to develop staff**
7	2	**The student must be aware of information provided to him and extent of its application to reality**	Contribution of laboratories to the individual health of the people	Theoretical applications	**Conducting tests to develop staff**
8	2	**The student must be aware of information provided to him and extent of its application to reality**	Contribution of laboratories to community public health	Theoretical applications	**Conducting tests to develop staff**
9	2	**The student must be aware of information provided to him and extent of its application to reality**	Long range planning	Theoretical applications	**Conducting tests to develop staff**
10	2	**The student must be aware of information provided to him and extent of its application to reality**	Short term planning	Theoretical applications	**Conducting tests to develop staff**

11	2	**The student must be aware of information provided to him and extent of its application to reality**	Intermediate planning	Theoretical applications	**Conducting tests to develop staff**
12	2	**The student must be aware of information provided to him and extent of its application to reality**	Organization	Theoretical applications	**Conducting tests to develop staff**
13	2	**The student must be aware of information provided to him and extent of its application to reality**	The role of management in maintaining staff and staff development	Theoretical applications	**Conducting tests to develop staff**
14	2	**The student must be aware of information provided to him and extent of its application to reality**	The role of management in maintaining staff and staff development	Theoretical applications	**Conducting tests to develop staff**
15	2	**The student must be aware of information provided to him and extent of its application to reality**	The role of management in maintaining staff and staff development	Theoretical applications	**Conducting tests to develop staff**
16	2	**The student must be aware of information provided to him and extent of its application to reality**	Leadership includes controlling the Scientific staff, administration staff and Cleaning staff	Theoretical applications	**Conducting tests to develop staff**
17	2	**The student must be aware of information provided to him and extent of its application to reality**	Leadership includes controlling the Scientific staff, administration staff and Cleaning staff	Theoretical applications	**Conducting tests to develop staff**
18	2	**The student must be aware of information provided to him and extent of its application to reality**	Leadership includes controlling the Scientific staff, administration staff and Cleaning staff	Theoretical applications	**Conducting tests to develop staff**
19	2	**The student must be aware of information provided to him and extent of its application to reality**	Leadership includes controlling the Scientific staff, administration staff and Cleaning staff	Theoretical applications	**Conducting tests to develop staff**
20	2	**The student must be aware of information provided to him and extent of its application to reality**	Controlling storage including Administrative materials and scientific Materials	Theoretical applications	**Conducting tests to develop staff**
21	2	**The student must be aware of information provided to him and extent of its application to reality**	Controlling storage including Administrative materials and scientific Materials	Theoretical applications	**Conducting tests to develop staff**

22	2	**The student must be aware of information provided to him and extent of its application to reality**	Controlling storage including Administrative materials and scientific Materials	Theoretical applications	**Conducting tests to develop staff**
23	2	**The student must be aware of information provided to him and extent of its application to reality**	Controlling storage including Administrative materials and scientific Materials	Theoretical applications	**Conducting tests to develop staff**
24	2	**The student must be aware of information provided to him and extent of its application to reality**	Dealing with the community and guiding The people from the health side	Theoretical applications	**Conducting tests to develop staff**
25	2	**The student must be aware of information provided to him and extent of its application to reality**	Dealing with the community and guiding The people from the health side	Theoretical applications	**Conducting tests to develop staff**
26	2	**The student must be aware of information provided to him and extent of its application to reality**	Dealing with analysis results in accurate manner	Theoretical applications	**Conducting tests to develop staff**
27	2	**The student must be aware of information provided to him and extent of its application to reality**	Dealing with analysis results in accurate manner	Theoretical applications	**Conducting tests to develop staff**
28	2	**The student must be aware of information provided to him and extent of its application to reality**	Using the computer to analyze the Results correctly and maintaining Devices and equipment	Theoretical applications	**Conducting tests to develop staff**
29	2	**The student must be aware of information provided to him and extent of its application to reality**	Using the computer to analyze the Results correctly and maintaining Devices and equipment	Theoretical applications	**Conducting tests to develop staff**
30	2	**The student must be aware of information provided to him and extent of its application to reality**	Using the computer to analyze the Results correctly and maintaining Devices and equipment	Theoretical applications	**Conducting tests to develop staff**

13. Course Evaluation
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Principles of laboratory management**
Main References (sources)	**Laboratory management**
Recommended Books & References (Scientific Journals, Reports …)	**Scientific journals and international reports on laboratory management**
Websites or Electronic References	**Global laboratory management website**