



جَامِعَةُ الْبَيَانِ



Academic Program Description

Al-Bayan University College of Health & Medical Techniques

2027 - 2026

Department of Kidney Dialysis Techniques
September 10, 2026

University	Al-Bayan University
Faculty/Institute	College of Health and Medical Techniques
Scientific Department	Kidney Dialysis Techniques
Academic/Professional Program Name	Course Description
Final Certificate Name	Bachelor in Kidney Dialysis Techniques
Academic System	Morning/Evening
Description Preparation Date	10-09-2026
File Completion Date	19-09-2026

Head of Department

Signe



Name Prof. Dr. Muzahim Muhammed

Date 25-09-2026

Scientific Associate

Signe



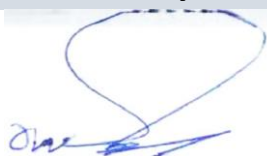
Name Lec. Dr. Mytham Jabouri
Abdullhussein

Date 25-09-2026

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 Lec. Sarah Abdullatif

Date 25-09-2026



Approval of the Dean
Prof. Dr. Ghaith Ali Jasim

1. Program Vision

Our vision is to provide preparations to medical technologies staff to possess high scientific skills according to the international standards, capable of functioning within efficient teamwork atmosphere in order to participate in treating and ameliorate the suffering of renal failure patients. All these preparations will be provided during the theoretical study and practical training period at the university along with dialysis centers in the Iraqi ministry of health institutes, accomplishing through which the highest degrees of scientific and practical efficiency for the graduates, and to be qualified to work in hospitals in general, and dialysis centers in specific.

2. The Message of the Academic Program

The Department of kidney dialysis techniques seeks to be the leader in Iraq and the Arab region in qualifying medical personnel capable of working in specialized centers within hospitals (dialysis centers) and providing the best therapeutic services with high technologies in the service of Iraq and its generous people and meeting the requirements of the labor market.

3. The Objectives of the Academic Program

- Graduating qualified staff to work in the dialysis centers, and these staffs provide excellent health services to patients with renal failure.
- Actively participating in the follow up process of renal failure patients regarding the strict treatment regimen by regularly taking medications and in terms of the dietary specifications of this segment of society.
- Providing awareness-raising services for patients with renal failure through seminars and field visits and effective contribution to the early detection of patients with renal failure.
- Participate in advanced professional training that is compatible with international standards in order to achieve high levels of renewed expertise in the field of dialysis.

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	15	28	17	
College Requirements	12	27	17	
Department Requirements	36	107	66	
Summer Training				satisfied
Other				

7. Program Description

Year / Level	Course Code	Course Name	Credit Hours	
			Theoretical	Practical
1 st	02021101	democracy & Human rights	2 Hours	-
	02021102	English Language	2 Hours	-
	02021103	Computer	2 Hours	1.5 Hour
	02021104	Medical terminology	2 Hours	-
	02021105	General chemistry	2 Hours	1.5 Hour
	02021106	General biology	2 Hours	1.5 Hour
	02021107	Human physiology	2 Hours	1.5 Hour
	02021108	General Histology	2 Hours	1.5 Hour
	02021201	Arabic Language	2 Hours	1.5 Hour
	02021202	Sports	2 Hours	-
	02021203	basics of Biochemistry	2 Hours	1.5 Hour
	02021204	General anatomy	2 Hours	1.5 Hour
	02021205	Human biology	2 Hours	1.5 Hour
	02021206	Clinical physiology	2 Hours	1.5 Hour
	02021207	Principles of nursing	2 Hours	1.5 Hour
2 nd 1 st	02022101	English Language	2 Hours	-

2nd	02022102	Crimes of baath regime in iraq	2 Hours	-
	02022103	Medical Psychology	2 Hours	1.5 Hour
	02022104	Metabolism	2 Hours	1.5 Hour
	02022105	Heamatology	2 Hours	1.5 Hour
	02022106	General Pathology	2 Hours	1.5 Hour
	02022107	General Pharmacology	2 Hours	1.5 Hour
	02022108	Specific Anatomy	2 Hours	1.5 Hour
	02022109	Public Health	2 Hours	1.5 Hour
	02022201	Arabic language	2 Hours	-
	02022202	Computer	2 Hours	1.5 Hour
	02022203	Professional ethics	2 Hours	1.5 Hour
	02022204	Biostatistics	2 Hours	1.5 Hour
	02022205	Medical Microbiology	2 Hours	1.5 Hour
	02022206	Basic Immunology	2 Hours	
	02022207	Metabolic Disorders	2 Hours	1.5 Hour
	02022208	Clinical Pathology	2 Hours	1.5 Hour
	02022209	Specific Pharmacology	2 Hours	1.5 Hour
	2023101	English Language	2 Hours	-
	2023102	Laboratory Safety	2 Hours	-
3rd	2023103	Biochemistry	2 Hours	1.5 Hour
	2023104	Therapeutic Nutrition	2 Hours	1.5 Hour
	2023105	Basics of Blood Transfusion and Fluid Administration	2 Hours	1.5 Hour
	2023106	Communication Skills	2 Hours	1.5 Hour
	2023107	Basics of Dialysis Technology	2 Hours	1.5 Hour
2nd	2023201	English Language	2 Hours	-
	2023202	Research Methods	2 Hours	-
	2023203	Advanced Basic of Blood Transfusion and Fluids Therapy	2 Hours	1.5 Hour
	2023204	Health Care Management	2 Hours	1.5 Hour
	2023205	Fundamental of Nursing	2 Hours	1.5 Hour
	2023206	Advanced Basics of Renal Dialysis Technology	2 Hours	1.5 Hour
	2023207	Occupational health	2 Hours	1.5 Hour

4 th 1 st	02024101	Scientific research methodology	2 Hours	-
	02024102	English Language	2 Hours	-
	02024103	Preventive and social medicine	2 Hours	1.5 Hour
	02024104	Applied renal dialysis	2 Hours	1.5 Hour
	02024105	Haemodialysis	2 Hours	1.5 Hour
	02024106	Renal emergency	2 Hours	1.5 Hour
	02024107	Basics of nephrology	2 Hours	1.5 Hour
2 nd	02024201	Graduation project	5 Hours	-
	02024202	Advanced applied renal dialysis	2 Hours	1.5 Hour
	02024203	Peritoneal dialysis	2 Hours	1.5 Hour
	02024204	Nosocomial infection	2 Hours	1.5 Hour
	02024205	Antibiotics	2 Hours	1.5 Hour
	02024206	Advanced nephrology	2 Hours	1.5 Hour

8. Expected learning outcomes of the program

➔ Knowledge

- Outcome Learning 1** *The student gets to know the principles of the kidneys in the human body*
- Outcome Learning 2** The student will be familiar with the various types of devices used for dialysis
- Outcome Learning 3** The student will recognize the necessity of finding easier ways to relieve the patient's burden by developing specialized devices for dialysis.
- Outcome Learning 4** the student have to recognize the importance of increasing cadres in this specialty due to their scarcity in the country

→ Skills

Outcome Learning 1	<i>The student must be able to complete the dialysis process accurately and quickly, especially for urgent cases</i>
Outcome Learning 2	<i>The student will be able to perform the basics of rapid nursing when needed</i>
Outcome Learning 3	<i>The student should be able to come up with plans for development and expansion in this field for the benefit of society</i>
Outcome Learning 4	<i>The student must reacts quickly to critical cases to bring the patient to a more stable condition</i>

→ Values

Outcome Learning 1	The student should realize the importance of this department to the society and medical personnel
Outcome Learning 2	The student must realize the difficulty of the patient's condition and give all his knowledge, experience, and values to alleviate the patient's condition
Outcome Learning 3	To plan periodic maintenance for dialysis machines on a regular basis in a way that does not conflict with patients
Outcome Learning 4	That the student realizes the importance of introducing new and advanced dialysis devices in the country, which reduces the pressure on the available devices and gives more opportunities to the patient.

9. Teaching and Learning Strategies

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

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		Staff	Numbers	
	General	Special			lec
Prof	<i>Pharmacology</i>	<i>Pharmacology</i>			
Prof	clinical laboratory diagnosis	clinical biochemistry	2		
Asst. Prof	None	None			
Lecturer	General medicine and surgery	Kidney and urinary tract surgery	3		
Lecturer	Medical Microbiology	Medical Microbiology			
Lecturer	General medicine and surgery	Kidney and urinary tract surgery			
Lecturer	Nursing	Adult Nursing			
Asst. Lecturer	biology	Microbiology	2		
Asst. Lecturer	Veterinary medicine	<i>Parasite</i>			
Teaching Asst.	<i>Pathological Analytics Techniques</i>		1		

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.

10. Admission Criteria

The target group for admission to the department of industrial kidney 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.

11. 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

Thanks to the exceptional efforts and high scientific competence of the teaching staff, the Department of Kidney Dialysis Techniques- despite its recent establishment at the College of Health and Medical Techniques - has achieved positive and outstanding results in a record period. In response to this early excellence, and in line with the latest quality standards and academic accreditation in higher university education, a comprehensive strategic and development plan was adopted to elevate the Department's program to the ranks of leading academic and medical programs.

The main axes of the development plan:

First: infrastructure modernization and laboratory expansion (application-based learning and simulation)

Accelerating the pace of completion and opening of additional specialized laboratories and clinical simulation centers equipped with the latest techniques and medical devices. This expansion aims to enhance the educational environment and reduce the gap between theory and practical application, which ensures intensive training of students simulating the environment of intensive care and dialysis centers.

Second: enhancing scientific and research production (evidence-based practice)

Directing the curricula towards enhancing the outputs of scientific research, by involving students in applied research projects that keep pace with the latest global developments in nephrology. This step aims to accelerate the knowledge production of the Department, refine the analytical and critical skills of students, and graduate cadres capable of providing innovative health solutions.

Third: improving clinical and professional efficiency (safe and patient-centered care)

Due to the extreme sensitivity and precision required by the specialty of artificial kidney, the plan attaches the highest priority to instilling professional and ethical awareness among students. This includes advanced training on patient safety protocols, careful handling of critical

cases, to bring graduates to the highest levels of professionalism and responsibility in the provision of direct healthcare

Future vision and learning outcomes:

This development plan aspires to go beyond traditional methods of education, to build an integrated academic system that ensures providing students with sound scientific and practical experiences. The ultimate goal is to prepare specialized medical and technical staff with high efficiency to deal with health challenges, and provide high-quality care befitting the status of the College of Health and medical technologies and meet the growing needs in the healthcare sector.



Program Skills															
				Learning Outcomes Required from the Program											
Year/Level	Course Code	Course Title	Primary or Optional	Knowledge				Skills				Values			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
1 st	02021101	democracy & Human rights	Optional	✓	✓			✓	✓			✓	✓	✓	
	02021102	English Language	Optional	✓	✓			✓	✓			✓	✓		
	02021103	Computer	Primary	✓	✓	✓		✓	✓	✓		✓	✓		
	02021104	Medical terminology	Primary	✓	✓			✓	✓			✓	✓		
	02021105	General chemistry	Primary	✓				✓	✓			✓	✓		
	02021106	General biology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02021107	Human physiology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02021108	General Histology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02021201	Arabic Language	Optional	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02021202	Sports	Optional	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02021203	basics of Biochemistry	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02021204	General anatomy	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02021205	Human biology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02021206	Clinical physiology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	02021207	Principles of nursing	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
2 nd	1st	02022101	English Language	Optional	✓	✓	✓	✓	✓	✓		✓	✓	✓	

	2023207	Occupational health	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
4 th	02024101	Scientific research methodology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024102	English Language	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024103	Preventive and social medicine	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024104	Applied renal dialysis	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024105	Haemodialysis	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024106	Renal emergency	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024107	Basics of nephrology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024201	Graduation project	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
02024202	Advanced applied renal dialysis	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	
	02024203	Peritoneal dialysis	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024204	Nosocomial infection	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024205	Antibiotics	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
	02024206	Advanced nephrology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓



Course Description (Human Rights and Democracy)

1. Course Title		Human Rights and Democracy	
2. Course Code		02021101	
3. Semester/Year		2026-2027	
4. Description Preparation Date		18/9/2026	
5. Available Attendance Form		Theoretical	
6. No. of Hours (Total)		30 hours (Theoretical)	
7. No. of Credits (Total)		2	
8. Course Administrator Name		Asst.Prof.Dr Hayder Abdulkadhim	
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.	

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

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

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			The difference between freedom & 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



Course Description (English language)

1. Course Title		English language	
2. Course Code		02021102	
3. Semester/Year		2026-2027	
4. Description Preparation Date		18/9/2026	
5. Available Attendance Form		Presence	
6. No. of Hours (Total)		30 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.	

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 + quiz
2	2	Acquire knowledge	Verbes and tenses	Theoretical explanation	Attendance + quiz
3	2	Acquire knowledge	Countable and uncountable nouns	Theoretical explanation	Attendance + quiz
4	2	Acquire knowledge	adjective and adverbs	Theoretical explanation	Attendance + quiz
5	2	Acquire knowledge	Quiz Question+ Verb Groups	Theoretical explanation	Attendance + quiz
6	2	Acquire knowledge	Definite and indefinite tools	Theoretical explanation	Attendance + quiz
7	2	Acquire knowledge	Identify some common mistakes in English	Theoretical explanation	Attendance + quiz
8	2	Acquire knowledge	Simple Past and Simple Present Verb Tenses	Theoretical explanation	Attendance + quiz
9	2	Acquire knowledge	Simple Future + Giving Oral Presentations	Theoretical explanation	Attendance + quiz
10	2	Acquire knowledge	Continuous past and Continuous Present Verb Tenses	Theoretical explanation	Attendance + quiz
11	2	Acquire knowledge	Continuous Future	Theoretical explanation	Attendance + quiz
12	2	Acquire knowledge	Exercise application	Theoretical explanation	Attendance + quiz
13	2	Acquire knowledge	Identify some common mistakes in English	Theoretical explanation	Attendance + quiz
14	2	Acquire knowledge	English communication + reading passages	Theoretical explanation	Attendance + quiz
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

Course Description (Computer)

1. Course Title		Computer
2. Course Code		02021103
3. Semester/Year		2026-2027
4. Description Preparation Date		18/9/2026
5. Available Attendance Form		On-Site
6. No. of Hours (Total)		30 hours
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.

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2	Projector Slides	Computer System Basics	Visual, Auditory, and Kinesthetic	Summative
2	2	Projector Slides	Starting Windows	Visual, Auditory, and Kinesthetic	Summative
3	2	Projector Slides	Applications Windows	Visual, Auditory, and Kinesthetic	Summative
4	2	Projector Slides	Desktop and Taskbar	Visual, Auditory, and Kinesthetic	Summative
5	2	Projector Slides	Computing Sessions	Visual, Auditory, and Kinesthetic	Summative
6	2	Projector Slides	Applications Shortcuts	Visual, Auditory, and Kinesthetic	Summative
7	2	Projector Slides	Desktop Icons	Visual, Auditory, and Kinesthetic	Summative
8	2	Projector Slides	File System	Visual, Auditory, and Kinesthetic	Summative
9	2	Projector Slides	Files and Folders	Visual, Auditory, and Kinesthetic	Summative
10	2	Projector Slides	File Explorer	Visual, Auditory, and Kinesthetic	Summative
11	2	Projector Slides	Accounts and Permissions	Visual, Auditory, and Kinesthetic	Summative
12	2	Projector Slides	Date and Time	Visual, Auditory, and Kinesthetic	Summative
13	2	Projector Slides	Region and Language	Visual, Auditory, and Kinesthetic	Summative
14	2	Projector Slides	System Restore	Visual, Auditory, and Kinesthetic	Summative
15	2	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, 2 nd edition, Microsoft Corp.
Recommended Books & References (Scientific Journals, Reports ...)	Andy Rathbone, Windows 10 For Dummies
Websites or Electronic References	www.microsoft.com

Course Description (General Chemistry)

1. Course Title		General Chemistry
2. Course Code		02021105
3. Semester/Year		First semester/2026-2027
4. Description Preparation Date		2026/03/30
5. Available Attendance Form		Attendance in the classroom in addition to e-learning
6. No. of Hours (Total)		4
7. No. of Credits (Total)		3
8. Course Administrator Name		Prof.Dr.Muzahim Alkabban
9. E-mail		-
10. Course Objectives		
Knowledge	A1	Knowing the basics of atoms, elements, and compounds, and studying the states matter (solid, liquid, and gaseous)
	A2	The student should be familiar with how to prepare solutions of different concentrations, in addition to identifying ions and organic materials
	A3	The student learns about acids and bases that are important in detecting different chemical elements
	A4	The practical general chemistry course is concerned with security and safe procedures within the laboratory and how to deal with hazardous materials, acids and bases
Skills	B1	The student should be able to acquire basic knowledge and skills in chemistry
	B2	Teaching the student how to become able to think logically, analyze, and employ the prescribed curriculum vocabulary.
	B3	Developing the student's mental and personal ability in the specialty is an important part of his field of specialization
	B4	Providing the student with communication skills and using modern educational technologies effectively.
Values	C1	The student should be able to work collectively and work individually to solve chemical analysis problems
	C2	The student should be able to use information technology to search for information
	C3	The student should be able to communicate with the professor and colleagues
	C4	The student must be able to rely on himself
11. Teaching and Learning Strategies		

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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

12. The Structure of the Course

Week	H ou rs	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2	A1, B1	Introduction to analytical chemistry (ma structure of atom, periodic table , bonds)	Acquiring information for electronics structure of the at	Oral questions
2		A2, B2, B3, B4, C1, C2, C3, C4	Methods of analysis Solution (preparation of standard solution concentration, percentage, formal. Sol.	Know the difference betw qualitative and quantita analysis	solving equations
3		A2, B2, B3, B4, C1, C2, C3, C4	Molar solution, Normal solution	How to calculate concentrati	solving equations
4		B2, B3, B4, C1, C2, C3, C4	Statistical treatment of analytical (accuracy, Mean value, deviation, stand deviation mean, value systematic error relative error , random and absolute error)	Knowledge of some statist treatments for laborat results	solving equations
5		A2, A3, B2, B3, B4, C1, C2, C3, C4	Chemical reaction (equilibrium const reaction rate, catalyst solubility, ionization	Learn about the types chemical reactions and how calculate the equilib constant	Written exam
6		A2, A3, B2, B3, B4, C1, C2, C3	Neutralization (acid base theory, PH, Buffers end point) Oxidation reduction Equilibria	Identify bases, acids, and bu solutions	solving equations
7		A2, A3, B2, B3, B4, C1, C2, C3, C4	Precipitation methods (gravimetry) formation of ppt., type of agent titration, calculations	Knowledge of sedimentar methods and gravime analysis of the sediment	solving equations
8		B2, B3, B4, C1, C2, C3, C4	Spectroscopy (Optical spectroscopy, Beer's law)	Know the basics of how to us spectrophotometer	Discussions
9		A2, B2, B3, B4, C1, C2, C3, C4	Structure of carbon compounds (alka alkenes, alkynes, halogen compound)	Identify organic chemistry hydrocarbon compounds	Oral questions and discussions
10		A2, B2, B3, B4, C1, C2, C3, C4	Alcohols, classification, properties reactio	Identify alcohols, t preparation methods, and th interactions	Oral questions and discussions

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11, 12		A2, B2, B3, B4, C1, C2, C3, C4	Aldehydes and ketones properties reaction	Identify aldehydes and ketones their preparation methods, their reactions	Oral questions and discussions
13, 14, 15		A2, B2, B3, B4, C1, C2, C3, C4	Carboxyl acid, amines	Identify carboxylic acids amines, methods of their preparation and reactions	Oral questions and discussions

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2	A4, C4	Laboratory instruction, safety rule, equipment	Providing the student with experience in dealing with chemicals and equipment	Oral questions
2	2	A2, B1, B2, B3, B4, C1, C2, C3, C4	Identification of some common inorganic cation	Detect the presence of some inorganic positive ions	Conducting practical experiments
3	2	A2, B1, B2, B3, B4, C1, C2, C3, C4	Identification of some common inorganic anions	Detect the presence of some inorganic negative ions	Conducting practical experiments
4	2	B3, B4, C1, C2, C3, C4	Practice With balances (preparation of different types of solutions. Percentage sol (w/v % , v/v % , w/w %) ppm	How to prepare solutions with different concentrations	Conducting practical experiments
5	2	B1, B3, B4, C1, C2, C3, C4	Normal solution, molar solution, dilution	How to prepare solutions with different concentrations	Conducting practical experiments
6	2	A3, B1, B2, B3, B4, C1, C2, C3, C4	Buffer solutions preparation and PH determination	How to prepare buffer solutions and know their importance	Conducting practical experiments
7	2	B1, B3, B4, C1, C2, C3, C4	Neutralization reaction (Standardization of NaOH against standard HCL Determination of acetic acid in vinegar Determination of a mixture of carbonate, bicarbonate	Determine unknown concentrations	Conducting practical experiments
8	2	B1, B3, B4, C1, C2, C3, C4	Redox titration Titration of KMNO4 solution against oxalic acid	Determine unknown concentrations	Conducting practical experiments

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9	2	B1, B3, B4, C1, C2, C3, C4	Precipitation reaction, determination of halides Cl-ion	Determine unknown concentrations	Conducting practical experiments
10	2	B1, B3, B4, C1, C2, C3, C4	Separation and purification of organic compound Distillation, extraction crystallization, sublimation	How to separate and purify organic compounds	Conducting practical experiments
11	2	B1, B3, B4, C1, C2, C3, C4	Determination of melting point Determination of boiling point	Learn the basics of organic diagnosis	Conducting practical experiments
12	2	B1, B3, B4, C1, C2, C3, C4	Reaction of some organic compounds (Aliphatic, aromatic alcohols phenols, aldehyde and ketone)	Knowledge of some reactions of organic compounds	Conducting practical experiments
13	2	B1, B3, B4, C1, C2, C3, C4	Aliphatic and aromatic carboxylic acid	Knowledge of some carboxylic acid reactions	Conducting practical experiments
14, 15	2	A2, B1, B3, B4, C1, C2, C3, C4	Scheme for identification of solid organic compound	Learn the basics of organic diagnosis	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)	
Main References (sources)	Katherine J. Denniston, Danaè R. Quirk, Joseph J. Topping, Robert L. Caret - General, Organic, and Biochemistry- McGraw-Hill(2023)
Recommended Books & References (Scientific Journals, Reports ...)	Spencer L. Seager, Michael R. Slabaugh, Maren S. Hansen - Chemistry for Today_ General, Organic, and Biochemistry- Cengage Learning(2021)
Websites or Electronic References	https://www.sciencedirect.com/ https://pubmed.ncbi.nlm.nih.gov/

Course Description (General Biology)

1. Course Title			General Biology		
2. Course Code			02021106		
3. Semester/Year			2026-2027		
4. Description Preparation Date			2026/9/18		
5. Available Attendance Form			Theoretical + Practical		
6. No. of Hours (Total)			(30) Theoretical + (30) Practical		
7. No. of Credits (Total)			3		
8. Course Administrator Name			Assistant lecturer Sarah Luay Subhi		
9. E-mail			-		
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

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

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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

Course Description (Human physiology)

1. Course Title		Human physiology
2. Course Code		02021107
3. Semester/Year		2026-2027
4. Description Preparation Date		2026/9/18
5. Available Attendance Form		Mandatory
6. No. of Hours (Total)		60 hrs (2 Theory + 2 Practical per week for 15 weeks)
7. No. of Credits (Total)		3
8. Course Administrator Name		Prof. Dr. Waleed Hameed Yousif
9. E-mail		waleed.h@albayan.edu.iq
10. Course Objectives		
Knowledge	A1	Knowing the mechanisms of work of the various organs of the body and the systems controlling them
	A2	Knowing how some organs work through laboratory experiments
	A3	Knowing the outcomes of some functional disorders and the diseases resulting from them
	A4	Knowing the functional relationships in the work of the body's systems
Skills	B1	Understanding the precise regulation of the work of the body's systems
	B2	Linking the physiological concepts to the practical life
	B3	Understanding the importance of studying the functions of body organs in applied fields
	B4	Understanding the relationship between organ functions and related biological issues
Values	C1	Communicating with the student in understanding the physiological concepts of the body
	C2	Developing the skills of the student by linking the theoretical side with the practical reality
	C3	Developing the sense of responsibility and expand the student's perception and help him accepting the scientific material
	C4	Developing the concepts of team work and harnessing it to serve the community
11. Teaching and Learning Strategies		

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1.	Lecture using data show	4.	Reports writing
2.	Laboratory experiments	5.	
3.	Conversation with the students	6.	

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2 theoretical 2 laboratory	Educational qualifying	Introduction of physiology , Cell structure and function	Lecture experiment and discussion	Theoretical and Practical examinations
2	2 theoretical 2 laboratory	Educational qualifying	Movement of molecules across cell membranes	Lecture experiment and discussion	Theoretical and Practical examinations
3	2 theoretical 2 laboratory	Educational qualifying	Physiology of blood	Lecture experiment and discussion	Theoretical and Practical examinations
4	2 theoretical 2 laboratory	Educational qualifying	Thermoregulation and Homeostasis	Lecture experiment and discussion	Theoretical and Practical examinations
5	2 theoretical 2 laboratory	Educational qualifying	Endocrine system and Hormones (lecture no.1)	Lecture experiment and discussion	Theoretical and Practical examinations
6	2 theoretical 2 laboratory	Educational qualifying	Endocrine system and Hormones (lecture no.2)	Lecture experiment and discussion	Theoretical and Practical examinations
7	2 theoretical 2 laboratory	Educational qualifying	Urinary (renal) system (lecture no.1)	Lecture experiment and discussion	Theoretical and Practical examinations
8	2 theoretical 2 laboratory	Educational qualifying	Urinary (renal) system (lecture no.2)	Lecture experiment	Theoretical and Practical examinations

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				and discussion	
9	2 theoretical 2 laboratory	Educational qualifying	Nervous system (lecture no.1)	Lecture experiment and discussion	Theoretical and Practical examinations
10	2 theoretical 2 laboratory	Educational qualifying	Nervous system (lecture no.2)	Lecture experiment and discussion	Theoretical and Practical examinations
11	2 theoretical 2 laboratory	Educational qualifying	The integument (Skin , hair , nails , glands and several specialized receptors)	Lecture experiment and discussion	Theoretical and Practical examinations
12	2 theoretical 2 laboratory	Educational qualifying	Anatomy , structure and function of blood vessels	Lecture experiment and discussion	Theoretical and Practical examinations
13	2 theoretical 2 laboratory	Educational qualifying	Pressure and fluid dynamics	Lecture experiment and discussion	Theoretical and Practical examinations
14	2 theoretical 2 laboratory	Educational qualifying	Control of blood pressure	Lecture experiment and discussion	Theoretical and Practical examinations
15	2 theoretical 2 laboratory	Educational qualifying	Physiology of respiration	Lecture experiment and discussion	Theoretical and Practical examinations

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)	Ganong's Review of medical physiology , Kim E. Barrett <i>et al.</i> McGraw Hill Lange
Recommended Books & References (Scientific Journals, Reports ...)	1.Textbook of medical physiology . A.C.Guyton & J.E.Hall . Saunders Elsevier 2. Journals of physiology
Websites or Electronic References	/

Course Description (General Histology)

1. Course Title		General Histology
2. Course Code		02021108
3. Semester/Year		2026-2027
4. Description Preparation Date		2026/9/18
5. Available Attendance Form		Lectures and laboratory
6. No. of Hours (Total)		30 hours (theory) 30 hours (practical)
7. No. of Credits (Total)		3
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.

12. The Structure of the Course

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

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

Course Description (Basics of Biochemistry)

1. Course Title		Basics of Biochemistry
2. Course Code		02021203
3. Semester/Year		Second semester/ 2026- 2027
4. Description Preparation Date		1/9/2026
5. Available Attendance Form		Theoretical sessions and practical activities
6. No. of Hours (Total)		60 hours (2 theory + 2 practical/ week)
7. No. of Credits (Total)		3
8. Course Administrator Name		Professor Dr. Muzahim muhammad
9. E-mail		Muzahim.m@albayan.edu.iq
10. Course Objectives		
Knowledge	A1	Give a general idea about biochemistry
	A2	Identify the basic information that qualifies for clinical chemistry
	A3	Enabling students to become familiar with the most important references and sources in biochemical sciences
Skills	B1	Enabling students to possess the skills to work in laboratories and conduct scientific experiments
	B2	Enable students to read and interpret all medical terms and symbols
	B3	Enabling students to have the ability to use modern devices and technologies
	B4	Enabling students to possess the skills of using scientific research tools in the academic field
	B5	Enabling students to possess the skills of dialogue, discussion, listening to others and accepting their opinions
	B6	Enabling students to possess self-learning skills to acquire new information and skills
Values	C1	Communicating with the student in understanding the chemical concepts of the body
	C2	Developing the skills of the student by linking the theoretical side with the practical reality
	C3	Developing the sense of responsibility and expand the student's perception and help him accepting the scientific material
	C4	Developing the concepts of team work and harnessing it to serve the community
11. Teaching and Learning Strategies		

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2.	Establishing dialogues with students	1.	Traditional preparations using a projector
		3.	Laboratory experiments

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2 theoretical 2 laboratory	Educational qualifying	General introduction	Lecture , experimen and discussion	Theoretical and Practical examinations
2	2 theoretical 2 laboratory	Educational qualifying	Carbohydrates: Definition, biological function, classification	Lecture , experimen and discussion	Theoretical and Practical examinations
3	2 theoretical 2 laboratory	Educational qualifying	Digestion and absorption	Lecture , experimen and discussion	Theoretical and Practical examinations
4	2 theoretical 2 laboratory	Educational qualifying	Lipids: Definition, biological function, classification	Lecture , experimen and discussion	Theoretical and Practical examinations
5	2 theoretical 2 laboratory	Educational qualifying	Digestion and absorption	Lecture , experimen and discussion	Theoretical and Practical examinations
6	2 theoretical 2 laboratory	Educational qualifying	Amino acids and Proteins: Definition, biological function, classification	Lecture , experimen and discussion	Theoretical and Practical examinations
7	2 theoretical 2 laboratory	Educational qualifying	Digestion and absorption	Lecture , experimen and discussion	Theoretical and Practical examinations
8	2 theoretical 2 laboratory	Educational qualifying	Hormones:	Lecture , experimen and discussion	Theoretical and Practical examinations
9	2 theoretical 2 laboratory	Educational qualifying	Hormones:	Lecture , experimen and discussion	Theoretical and Practical examinations
10	2 theoretical 2 laboratory	Educational qualifying	Nucleotides and Nucleic acids:	Lecture , experimen and discussion	Theoretical and Practical examinations
11	2 theoretical	Educational	Nucleotides and Nucleic acids:	Lecture , experimen	Theoretical and

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	2 laboratory	qualifying		and discussion	Practical examinations
12	2 theoretical 2 laboratory	Educational qualifying	Enzymes: General properties	Lecture , experimen and discussion	Theoretical and Practical examinations
13	2 theoretical 2 laboratory	Educational qualifying	Enzymes: Factors affecting reaction velocity	Lecture , experimen and discussion	Theoretical and Practical examinations
14	2 theoretical 2 laboratory	Educational qualifying	Vitamins: Classification (water and Fat soluble vitamins)	Lecture , experimen and discussion	Theoretical and Practical examinations
15	2 theoretical 2 laboratory	Educational qualifying	Vitamins: Chemical nature, sources, Biological functions, deficiency	Lecture , experimen and discussion	Theoretical and Practical examinations

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)	NON
Main References (sources)	Lippincott illustrated reviews biochemistry Authors: Emine E. Abali, Susan D.Cline, David S.Franklin, Susan M.Viselli PhD
Recommended Books & References (Scientific Journals, Reports ...)	HARPER'S ILLUSTRATED BIOCHEMISTRY Authors: Victor W. Rodwell ,Kathleen M.Botham
Websites or Electronic References	Biochemical websites

Course Description (General Anatomy)

1. Course Title		General Anatomy	
2. Course Code		02021204	
3. Semester/Year		2026-2027	
4. Description Preparation Date		27/9/2026	
5. Available Attendance Form		Students' attendance system	
6. No. of Hours (Total)		60 hrs. (30 Theoretical + 30 Practical)	
7. No. of Credits (Total)		3	
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

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

Course Description (Human Biology)

1. Course Title		Human Biology		
2. Course Code		02021205		
3. Semester/Year		2027/2026		
4. Description Preparation Date		2026/9/29		
5. Available Attendance Form		Theoretical + Practical		
6. No. of Hours (Total)		(30) Theoretical + (30) Practical		
7. No. of Credits (Total)		3		
8. Course Administrator Name		Assistant lecturer Sarah Luay Subhi		
9. E-mail		-		
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

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

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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

Course Description (Clinical physiology)

1. Course Title		Clinical physiology
2. Course Code		02021206
3. Semester/Year		Second semester / First stage
4. Description Preparation Date		30/9/2026
5. Available Attendance Form		Mandatory
6. No. of Hours (Total)		60 hrs (2 Theory + 2 Practical per week for 15 weeks)
7. No. of Credits (Total)		3
8. Course Administrator Name		Prof. Dr. Waleed Hameed Yousif
9. E-mail		waleed.h@albyan.edu.iq
10. Course Objectives		
Knowledge	A1	Knowing the mechanisms of work of the urinary system and the systems controlling it
	A2	Knowing how some organs work through laboratory experiments
	A3	Knowing the outcomes of some functional disorders and the diseases resulting from them
	A4	Knowing the functional relationships in the work of the kidney and body's systems
Skills	B1	Understanding the precise regulation of the work of the urinary system
	B2	Linking the physiological concepts to the practical life
	B3	Understanding the importance of studying the functions of the urinary system in the applied fields
	B4	Understanding the relationship between urinary system functions and related biological issues
Values	C1	Communicating with the student in understanding the physiological concepts of the urinary system
	C2	Developing the skills of the student by linking the theoretical side with the practical reality
	C3	Developing the sense of responsibility and expand the student's perception and help him accepting the scientific material
	C4	Developing the concepts of team work and harnessing it to serve the community

11. Teaching and Learning Strategies

1.	Lecture using data show	4.	Reports writing
2.	Laboratory experiments	5.	
3.	Conversation with the students	6.	

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2 theoretical 2 laboratory	Educational qualifying	Definition of kidney , structure , functions	Lecture experiment and discussion	Theoretical and Practical examinations
2	2 theoretical 2 laboratory	Educational qualifying	The man extra-renal structure (nephrons)	Lecture experiment and discussion	Theoretical and Practical examinations
3	2 theoretical 2 laboratory	Educational qualifying	Urinary bladder – structure , function	Lecture experiment and discussion	Theoretical and Practical examinations
4	2 theoretical 2 laboratory	Educational qualifying	Ureter and urethra , structure , function	Lecture experiment and discussion	Theoretical and Practical examinations
5	2 theoretical 2 laboratory	Educational qualifying	Renal tubules , types , structure , function	Lecture experiment and discussion	Theoretical and Practical examinations
6	2 theoretical 2 laboratory	Educational qualifying	Renal circulation	Lecture experiment and discussion	Theoretical and Practical examinations
7	2 theoretical 2 laboratory	Educational qualifying	Urination process Glomerular filtration rate , definition , normal value , factors affecting it	Lecture experiment and discussion	Theoretical and Practical examinations

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8	2 theoretical 2 laboratory	Educational qualifying	Discussion , review	Lecture experiment and discussion	Theoretical and Practical examinations
9	2 theoretical 2 laboratory	Educational qualifying	Tubular reabsorption , sites, substances reabsorbed , mechanism of reabsorption	Lecture experiment and discussion	Theoretical and Practical examinations
10	2 theoretical 2 laboratory	Educational qualifying	Tubular secretion , site , substances secreted , mechanism of secretion	Lecture experiment and discussion	Theoretical and Practical examinations
11	2 theoretical 2 laboratory	Educational qualifying	Renal function tests	Lecture experiment and discussion	Theoretical and Practical examinations
12	2 theoretical 2 laboratory	Educational qualifying	Discussion , review	Lecture experiment and discussion	Theoretical and Practical examinations
13	2 theoretical 2 laboratory	Educational qualifying	Renal failure , types , risk factors , physiology	Lecture experiment and discussion	Theoretical and Practical examinations
14	2 theoretical 2 laboratory	Educational qualifying	Causes of renal failure	Lecture experiment and discussion	Theoretical and Practical examinations
15	2 theoretical 2 laboratory	Educational qualifying	Final examination	Lecture experiment and discussion	Theoretical and Practical examinations

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)	Ganong's Review of medical physiology , Kim E. Barrett <i>et al.</i> McGraw Hill Lange
Recommended Books & References (Scientific Journals, Reports ...)	1.Textbook of medical physiology . A.C.Guyton & J.E.Hall . Saunders Elsevier 2. Journals of physiology
Websites or Electronic References	/

Course Description (Principles of nursing)

1. Course Title		Principles of nursing
2. Course Code		02021207
3. Semester/Year		Second semester 2026 -2027
4. Description Preparation Date		2026 / 9 /29
5. Available Attendance Form		Available and online
6. No. of Hours (Total)		3 hours /weekly (1 theoretical + 2 practical)
7. No. of Credits (Total)		2
8. Course Administrator Name		Lect. Sarah Abdullatif Kadhim
9. E-mail		Sarah.a@albayan.edu.iq
10. Course Objectives		
Knowledge	A1	The student gets to know the basics of nursing skills in the correct scientific way
	A2	The student will learn what are the ways of transmission of infection between patients and how to avoid and treat it
	A3	
	A4	
Skills	B1	The student gets to know the correct methods of dealing with a patient inside hospital
	B2	The student should avoid transmitting infection when dealing with patients
	B3	
	B4	
Values	C1	The student must be an effective pivot in providing the best medical and health services to the patient and saving a person's life
	C2	The student must have complete knowledge of the correct methods for reducing the patient's pain and suffering
	C3	
	C4	
11. Teaching and Learning Strategies		
1.	Brainstorming	4. Role-playing and application to the doll in the laboratory
2.	Electronic screen and presentations	5. E-learning and the use of its platforms
3.	Cooperative education	6.

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	1th+2p	Theoretical: basics of nursing, definition (nursing, nurse, health, hospital)	Fundamentals of nursing	Method of giving lectures Discussion method Presentations	Written tests Oral exams Applied practical tests
		Practical : patient examination general1			
2	1th+2p	Theoretical: patient management and discharge from the hospital, detailed plan, oral report, theoretical report, nursing process (assessment, planning, implementation, evaluation)	Nursing procedures	Method of giving lectures Discussion method Presentations	Written tests Oral exams
		Practical : patient examination general 2			
3	1th+2p	Theoretical: physical examination and preparing the patient for the examination the role of the nurse in the physical examination, collecting models, preparing tools.	Physical examination	Method of giving lectures Student groups Brainstorming	Oral exams
		Practical: measuring respiration and pulse			
4	1th+2p	Theoretical: body mechanics, body position principles of body positions, its uses and complications	Body mechanics	Method of giving lectures Cooperative	Oral exams

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		Practical: measuring blood pressure		education And discussions	
5	1th+2p	Theoretical: The basic needs of the patient, caring for the patient's unit, arranging the bed, reasons for lack of physical comfort, mental health, and psychological and spiritual support for patients.	Patient care	Method of giving lectures Discussion method Role-playing method Collaborative method	Written tests Oral exams
		Practical: Learn to measure body temperature			
6	1th+2p	Theoretical: Body hygiene, care of the teeth, skin, and mouth, patient bathing and its types, bed sores (its causes, types, and how to avoid them).	Bedsore	E-Learning Discussion method	Written tests Oral exams
		Practical: Teaching hand washing			
7	1th+2p	Theoretical: Fluids and nutrients, nutrition, nutrients used with kidney failure	Nutrients	Method of giving lectures Discussion method	Written tests Oral exams
		Practical: A visit to the hospital			
8	1th+2p	Theoretical: sterilization method, surgical sterilization, medical sterilization, types of disinfectants, wound sterilization	Wound sterilization	Method of giving lectures Discussion method	Written tests Oral exams
		Practical: Discussion about the patient's positions			
9	1th+2p	Theoretical: vital signs, temperature,	Vital Signs	Method of giving	Written tests

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		methods for measuring it and their locations measuring the pulse, its methods and locations.		lectures Discussion method	Oral exams
		Practical: Discussion about the patient's positions			
10	1th+2p	Theoretical: breathing and methods measuring it, measuring blood pressure and methods	Vital Signs	Method of giving lectures Discussion method Role acting Collaborative method	Written tests Oral exams
		Practical: Discussion about the patient's positions			
11	1th+2p	Theoretical: Giving medications, methods and types of administration, cold and hot compresses	Giving medications	Method of giving lectures Discussion method	Written tests Oral exams
		Practical: discussion, review, exam			
12	1th+2p	Theoretical: Kidney dialysis unit, principles and functions	Kidney dialysis	Method of giving lectures Discussion method	Written tests Oral exams
		Practical: Video about types of fluids			
13	1th+2p	Theoretical: Fluids used in the dialysis unit, their types, uses, and side effects	Nutrients	Method of giving lectures	Written tests Oral exams

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		Practical: Video about types of fluids		Discussion method	
14	1th+2p	Theoretical: catheters, their types, uses, advantages, reasons for using them, contraindications, and nursing intervention in them. Practical: Types of catheters	Catheterization	Method of giving lectures Discussion method	Written tests Oral exams
15	1th+2p	Theoretical: surgical nursing, nursing care before and after dialysis Practical: A visit to the hospital	Nursing care after dialysis	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)	Fundamentals of Nursing book ,tenth edition 2022 Fundamentals of Nursing procedure
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports ...)	Scientific Journals
Websites or Electronic References	https://nurseslabs.com/category/nursing-notes/fundamentals-of-nursing/#google_vignette Fundamentals of Nursing - E-Book (https://books.google.ig/books?id=eCKKCwAAQBAJ&printsec=frontcover&hl=ar&source=qbs_ge_summary_r&cad=0#v=onepage&q&f=false)

Course Description (Hematology)

1. Course Title		Hematology	
2. Course Code		02022105	
3. Semester/Year		2026-2027	
4. Description Preparation Date		18/9/2026	
5. Available Attendance Form		Theoretical + Practical	
6. No. of Hours (Total)		60 (30 Theoretical + 30 Practical)	
7. No. of Credits (Total)		3	
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 and abnormal ranges of blood components in addition to the changes that occur in 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.	

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 viscosity 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

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		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

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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	

Course Description (Medical Bacteriology)

1. Course Title		Medical Bacteriology
2. Course Code		02022205
3. Semester/Year		Semester
4. Description Preparation Date		2026\9\18
5. Available Attendance Form		Lectures (Theory , Lab Practicle)
6. No. of Hours (Total)		60 hours (30 Theretical + 30 Practical)
7. No. of Credits (Total)		3
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.

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 Disinfection	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

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7	2	2	Virulence factors of bacteria, pathogenicity and infection	Microbial virulence factors and pathogenesis of bacterial infection.	Method of giving lectures Discussion method	Oral exams
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

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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
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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

Course Description (Basic Immunology)

1. Course Title		Basic Immunology
2. Course Code		02022206
3. Semester/Year		2027-2026
4. Description Preparation Date		2026/9/18
5. Available Attendance Form		face to face learning
6. No. of Hours (Total)		(30 Theoretical + 30 Practical)
7. No. of Credits (Total)		3
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 cells Phagocytosis Origin, maturation, receptors, types and antigen presenting cells APC 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	Retrograde, changes, Degeneration	Retrograde, changes, Degeneration	theoretical & practical	Daily exam and direct questions
6	2th+2p	Atrophy Necrosis, cloudy swelling	Atrophy 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 used for cytopathological diagnosis of cancer	Criteria used for cytopathological diagnosis of cancer	theoretical & practical	Daily exam and direct questions
9	2th+2p	Changes in the cytoplasm in malignancy Changes in the nucleus in malignancy	Changes in the cytoplasm 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	Nomenclature of tumors	Nomenclature 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

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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 for individual 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 ,embedding	Tissue processting Fixation ,dehydration ,clearing ,embedding	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 tissue sections Hematoxylin ,eosin ,connective tissue ,stains	Staining of tissue sections Hematoxylin ,eosin ,connective tissue ,stains	theoretical & practical	Daily exam and direct questions
19	2th+2p	Special stains for proteine ,carbohydrates,lipid ,mucousubstance,pigments minerals ,apud cell and microorganisms	Special stains for proteine ,carbohydrates,lipid ,mucousubstance,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	Neuropatholghical tech niques	Neuropatholghical 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 –Diagnostic uses	Electron microscopy –Diagnostic uses	theoretical & practical	Daily exam and direct questions
28	2th+2p	Histometry and diagnostic uses		theoretical & practical	Daily exam and direct questions

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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