جامعة البيان

Academic Program Description

Al-Bayan University

College of Health & Medical Techniques

2023 - 2024

Department of Kidney Dialysis Techniques

March 17, 2024

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
Description Preparation Date	17-03-2024
File Completion Date	19-03-2024

Head of Department	
Signe	
Name	Prof. Dr. Muzahim Muhammed
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. Lec. Sarah Abdullatif
Date	17-03-2024

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
1st	NTU 100	Democracy and Human rights	2 Hours	
	NTU 101	English Language	2 Hours	
	NTU 102	Computer	2 Hours	1.5 Hour
	NTU 103	Arabic Language	2 Hours	
	NTU 104	Sports or French Language	2 Hours	
	CHMTK 111	Medical Terminology	2 Hours	
	CHMTK 112	General Chemistry	2 Hours	1.5 Hour
	CHMTK 113	General Biology	2 Hours	1.5 Hour
	RDT 111	Human Physiology	2 Hours	1.5 Hour
	RDT 112	General Histology	2 Hours	1.5 Hour
	RDT 123	Basics of Biochemistry	2 Hours	1.5 Hour
	RDT 124	General Anatomy	2 Hours	1.5 Hour
	RDT 125	Human Biology	2 Hours	1.5 Hour
	RDT 126	Clinical Physiology	2 Hours	1.5 Hour
	RDT 127	Principles of Nursing	2 Hours	1.5 Hour

2nd

3rd

4th

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

➔ 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

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	*Pharmacology*	*Pharmacology*	2	
Prof	clinical laboratory diagnosis	clinical biochemistry		
Ass. Prof	None	None		
Lecturer	Biomedical engineering	Biomedical engineering	3	
Lecturer	Medical Microbiology	Medical Microbiology		
Lecturer	General medicine and surgery	Kidney and urinary tract surgery		
Ass. Lecturer	Agricultural engineering sciences	*Genetics*	3	
Ass. Lecturer	Veterinary medicine	*Parasite*		
Ass. Lecturer	Nursing	Adult Nursing	1	
Teaching Ass.	*Medical Lab Techniques*			

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 teaching staff of the Department of Industrial Kidney Techniques, positive and amazing results have emerged, knowing that it is a new department in the College of Health and Medical Techniques. Therefore, a professional academic plan was made to develop the department's program by accelerating the opening of more laboratories for the new department in order to increase the speed of scientific production for the students of the industrial kidney department and their acquisition of scientific and practical experience in this field, in addition to teaching the students the importance of field and bringing them to the highest levels of careful dealing with the patient due to the sensitivity of this specialty

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	NTU 100	Democracy & Human rights	Primary	✓	✓			✓	✓			✓	✓	✓	
	NTU 101	English Language	Primary	✓	✓			✓	✓			✓	✓		
	NTU 102	Computer	Primary	✓	✓	✓		✓	✓	✓		✓	✓		
	NTU 103	Arabic Language	Primary	✓	✓			✓	✓			✓	✓		
	NTU 104	Sports or French Language	Optional	✓				✓	✓			✓	✓		
	CHMTK 111	Medical Terminology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	CHMTK 112	General chemistry	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	CHMTK 113	General Biology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	
	RDT 111	Human Physiology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓	

	RDT 112	General Histology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
	RDT 123	Basics of Biochemistry	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
	RDT 124	General Anatomy	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
	RDT 125	Human Biology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
	RDT 126	Clinical Physiology	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
	RDT 127	Principles of Nursing	Primary	✓	✓	✓		✓	✓	✓		✓	✓	✓
2nd														

3rd

4th

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Course Description (1)

1. Course Title	**Human Rights and Democracy**
2. Course Code	**NTU 100**
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	**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.**	

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

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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**

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Course Description (2)

1. Course Title	**English language**
2. Course Code	**NTU 101**
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)	**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.**	

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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**

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Course Description (3)

1. Course Title	Computer 1
2. Course Code	NTU 102
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)	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.	

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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, 2nd edition, Microsoft Corp.
Recommended Books & References (Scientific Journals, Reports …)	Andy Rathbone, Windows 10 For Dummies
Websites or Electronic References	www.microsoft.com

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Course Description (6)

1. Course Title	**Medical Terminology**
2. Course Code	**CHMTK111**
3. Semester/Year	**2023-2024**
4. Description Preparation Date	**27/3/2024**
5. Available Attendance Form	**Students' attendance**
6. No. of Hours (Total)	**2 / per week**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Prof. Dr. Ghaith Ali Jasem**
9. E-mail	**ghaith.a@albayan.edu.iq**

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 anatomy,	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 (7)

1. Course Title	**General Chemistry 1**
2. Course Code	**CHMTK 112**
3. Semester/Year	**First semester/2023-2024**
4. Description Preparation Date	**2024/03/30**
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	**Dr. Samar Thamer Hameed**
9. E-mail	**Samar.thamer@albayan.edu.iq**

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 differ concentrations, in addition to identifying ions and organic materials
	A3	The student learns about acids and bases that are important in detecting differ chemical elements
	A4	The practical general chemistry course is concerned with security and saf procedures within the laboratory and how to deal with hazardous materials, ac 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 emp the prescribed curriculum vocabulary.
	B3	Developing the student's mental and personal ability in the specialty is an import part of his field of specialization
	B4	Providing the student with communication skills and using modern educatio technologies effectively.
Values	**C1**	The student should be able to work collectively and work individually to so chemical analysis problems
	C2	The student should be able to use information technology to search for informati
	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

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**

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12. The Structure of the Course

Week	Hours	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 u 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, stan deviation mean, value systematic er 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 equilibr 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 sedimentat 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 reaction	Identify alcohols, th preparation methods, and th interactions	Oral questions and discussions

11, 12		A2, B2, B3, B4, C1, C2, C3, C4	Aldehydes and ketones properties reaction	Identify aldehydes and keto 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 t 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

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/

جامعة البيان

Course Description (7)

1. Course Title	**General Chemistry 1**
2. Course Code	**CHMTK 112**
3. Semester/Year	**First semester/2023-2024**
4. Description Preparation Date	**2024/03/30**
5. Available Attendance Form	**Attendance in the classroom in addition to e-learning**
6. No. of Hours (Total)	**4 (2 Theoretical + 2 Practical) per week**
7. No. of Credits (Total)	**3**
8. Course Administrator Name	**Dr. Samar Thamer Hameed**
9. E-mail	**Samar.thamer@albayan.edu.iq**

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 differ concentrations, in addition to identifying ions and organic materials
	A3	The student learns about acids and bases that are important in detecting differ chemical elements
	A4	The practical general chemistry course is concerned with security and saf procedures within the laboratory and how to deal with hazardous materials, ac 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 emp the prescribed curriculum vocabulary.
	B3	Developing the student's mental and personal ability in the specialty is an import part of his field of specialization
	B4	Providing the student with communication skills and using modern educatio technologies effectively.
Values	**C1**	The student should be able to work collectively and work individually to so chemical analysis problems
	C2	The student should be able to use information technology to search for informati
	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

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	A1, B1, B2, B3, B4, C1, C2, C3, C4	Cells: The units of life: 1- Cells and membranes. 2- Prokaryotic and eukaryotic cells. 3- Subcellular organelles	Gain information about ce structure	Oral questions and Discussions
3 ،2	4	A1, A2, A3, B1, B2, B3, B4, C1, C2, C3,	Carbohydrates: 1- Definition. 2- Biological functions. 3- Classification. 4- Digestion and absorption.	Knowing the chemical formu of carbohydrates and their r in the human body	Oral questions and Discussions
5 ،4	4	A1, A2, A3, B1, B2, B3, B4, C1, C2, C3,	Lipids: 1- Definition. 2- Biological functions. 3- Classification. 4- Digestion and absorption	Knowing the chemical formu of fats and their role in the human body	Oral questions and Discussions
7 ،6	4	A1, A2, A3, B1, B2, B3, B4, C1, C2, C3,	Amino acids and Proteins: 1- Definition. 2- Biological functions. 3- Classification. 4- Digestion and absorption.	Knowing the chemical formu of proteins and their role in t human body	Oral questions and Discussions
9 ،8	4	A1, A2, A3, B1, B2, B3, B4, C1, C2, C3,	Hormones: 1- Definition. 2- Classification according to their chemical nature. 3- Names and physiological functions of hypothalamic, pituitary, thyroid, parathyroid, suprarenal, pancreatic and sex gland hormones	Knowing the chemical formu of hormones and their role the human body	Oral questions and Discussions
11 ،10	4	A1, A2, A3, B1, B2, B3, B4, C C2, C3, C4	Nucleotides and Nucleic acids: 1- Definition. 2- Classification of nitrogenous bases.	Knowing the chemical formu of nucleic acids and their role the human body	Oral questions and Discussions

			3- Biological functions of free nucleotides. 4- General structure and differences betwe DNA and RNA.		
13 ،12	4	A1, A2, A3, B1, B2, B3, B4, C1, C2, C3,	1- General properties of enzymes: a) active sites b) catalytic efficiency c) specificity d) cofactor e) regulation f) location within the cells 2- Factors affecting reaction velocity a) Substrate concentration b) Temperature c) Ph	Know the chemical formula enzymes and their role in th human body	Oral questions and Discussions
15 ،14	4	A1, A2, A3, B1, B2, B3, B4, C1, C2, C3,	Vitamins: 1- Definition. 2- Classification (Water and Fat soluble vitamins). 3- Members of each class as regards chemical nature, sources, daily requirement, biological function and abnormal conditions due to deficiency or toxicity	Knowing the chemical formu of vitamins and their role in human body	Oral questions and Discussions

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
١	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Carbohydrates (monosacharides) Molish test Benedict, Barfoid test, Bile, Selfanof test, Osazon test	Conducting practical experiments	Conducting practical experiments
٢	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Disacharides (hydrolysis of disaccharides by acids)	Diagnosis of disaccharides	Conducting practical experiments
4 ،3	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Polysacharides Hydrolysis of polysaccharides by acids Hydrolysis of polysaccharides by saliva	Diagnosis of polysaccharides	Conducting practical experiments
6 ،5	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Scheme for identification of unknown carbohydrate sol	Determine the type of carbohydrates	Conducting practical experiments

7	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Quantitative estimation of glucose by quantitative Benedict sol	Calculate glucose concentration	Conducting practical experiments
10 ،9 ،8	6	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Proteins Biuret test , Sakaguchi test , cysteine test Ninhydrin test , xantho protein test , Molish test	Protein diagnosis	Conducting practical experiments
12 ،11	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Precipitation of proteins (ionic strength PH , temp solvent)	Protein precipitation methods	Conducting practical experiments
14 ،13	4	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Paper chromatography techniques	Learn about paper chromatography technology	Conducting practical experiments
15	2	A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C4	Thin layer chromatography techniques	Learn about thin layer chromatography technology	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/

جامعة البيان

Course Description (8)

1. Course Title	**General Biology**
2. Course Code	**CHMTK 113**
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)	**3**
8. Course Administrator Name	**Assistant lecturer Ali bashir alwan**
9. E-mail	Ali.b@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**	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 (9)

1. Course Title	**Human physiology**
2. Course Code	**RDT 111**
3. Semester/Year	**First semester / First stage**
4. Description Preparation Date	**30/3/2024**
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 t 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

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

جامعة البيان

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

				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 *et al.* 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	/

جامعة البيان

Course Description (10)

1. Course Title	General Histology
2. Course Code	RDT 112
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)	**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.**	

جامعة البيان

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 preparatior	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 cartilag	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

				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	

جامعة البيان

Course Description (12)

1. Course Title	**Basics of Biochemistry**
2. Course Code	**RDT123**
3. Semester/Year	**Second semester/ 2023 - 2024**
4. Description Preparation Date	**1/4/2024**
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

Knowledg	**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

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

جامعة البيان

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

	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

جامعة البيان

Course Description (12)

1. Course Title	**General Anatomy**
2. Course Code	**RDT124**
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)	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**

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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**

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Course Description (13)

1. Course Title	**Human Biology**
2. Course Code	**RDT 125**
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)	**3**
8. Course Administrator Name	**Assistant lecturer Ali bashir alwan**
9. E-mail	Ali.b@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**	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**

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Course Description (14)

1. Course Title	**Clinical physiology**
2. Course Code	**RDT126**
3. Semester/Year	**Second semester / First stage**
4. Description Preparation Date	**30/3/2024**
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 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.	

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2 theoretical 2laboratory	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

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 *et al.* 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	/

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Course Description (15)

1. Course Title	**Principles of nursing**
2. Course Code	**RDT 127**
3. Semester/Year	**Second semester 2023 -2024**
4. Description Preparation Date	**2024 / 3 /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	**Assist. Lect. Sarah abdullatef 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 betwe 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 hea services to the patient and saving a person's life
	C2	The student must have complete knowledge of the correct methods for reduc 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.**	

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

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

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

		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.iq/books?id=eCKKCwAAQBAJ&printsec=frontcover&hl=ar&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false)**