جامعة البيان

Academic Program Description

Al-Bayan University

College of Pharmacy

2025 - 2026

College of Pharmacy

20 September, 2025

University	Al-Bayan University
Faculty	College of Pharmacy
Department	College of pharmacy
Title of Academic Program	Bachelor in pharmacy science
Degree	Bachelor in pharmacy science
Type of Study	Courses (semester)
Date of Preparing the Course Description	10-9-2025
Date of Completing the Course Description	20-9-2025

Head of Department

Signe

Name Asist. Prof. Dr. Atheer Sabah

Date 23-9-2025

Deputy Dean for Scientific Affairs

Signe

Name Lect. Dr. Ameer Hussein Alwash

Date 23-9-2025

This File has been Checked by Quality Assurance Section

Head of Quality Assurance Section

Signe

Name Asist. Lect. Ekhas Khammas Hasan

Date 23-9-2025

Approved by The Dean

الاستاذ المساعد الدكتور
حسين صكبان طياغ

1. The Vision of the Academic Program

The Faculty of Pharmacy is an educational and research institution of public benefit, whose goal is human health through high-quality pharmaceutical education and to prepare qualified pharmacists with scientific and professional capabilities and skills that qualify them to serve the community within health institutions and pharmaceutical factories, as well as spreading health culture and health awareness.

2. The Message of the Academic Program

Preparing qualified pharmaceutical competencies with specialized knowledge, professional skills, and ethical values to meet the needs of the labor market through a distinguished academic environment and promising scientific research.

3. The Objectives of the Academic Program

1. Improving the college curriculum and developing it continuously to reach the scientific levels and in line with the labor market.
2. Establishing a total quality management system and seeking institutional and program academic accreditations.
3. Communication, cooperation, and partnership with the corresponding institutions in all fields.
4. Providing scientific consultations to relevant ministries and state institutions and the private sector.
5. Reaching international standards in pharmaceutical education.

4. The Program Accreditation

N/A

5. Other External Influences

N/A

6. Program Structure

Course Structure	Number of Courses	Credit Units	(%)	Notes
Institutional Requirements	11	15		
College Requirements	56	170		
Department Requirements	56	170		
Summer Training	2	-		
Other				

7. Program Description

Year / Level		Course Code	Course Name	Credit Hours Theoretical	Credit Hours Practical
1st	1st	401101	Human biology	2	2
		401102	Principles of Pharmacy Practice	2	----
		401103	Analytical Chemistry	3	2
		401104	Medical Terminology	1	----
		401105	Mathematics and Biostatistics	3	----
		401106	Computer Sciences I	----	2
		401107	English Language I	2	----
		401108	Democracy and human rights	1	---
	2nd	401208	Human Anatomy	1	2
		401209	Pharmaceutical Calculations	2	2
		401210	Medical Physics	2	2
		401211	Organic Chemistry I	3	2
		401212	Histology	2	2
		401213	Computer Sciences II	----	2
		401214	Arabic Language	2	-----
2nd	1st	402101	Organic Chemistry II	3	2
		402102	Medical Microbiology I	3	2
		402103	Physical Pharmacy I	3	2
		402104	Physiology I	3	2
		402105	Democracy	1	---
		402106	Computer Sciences III	----	2
		401214	جرائم حزب البعث البائد	2	----
	2nd	402208	Organic Chemistry III	2	2
		402209	Medical Microbiology II	3	2
		402210	Physical Pharmacy II	3	2
		402211	Physiology II	3	2
		402212	Pharmacognosy I	3	2
		402213	Computer Sciences IV	----	2
		402214	Arabic Language	2	-----

3rd	1st	403101	Inorganic Pharmaceutical Chemistry	2	2
		403102	Pharmacognosy II	2	2
		403103	Pharmaceutical Technology I	3	2
		403104	Biochemistry I	3	2
		403105	Pathophysiology	3	2
	2nd	403207	Organic Pharm. Chemistry I	3	2
		403208	Pharmacology I	3	----
		403209	Pharm. Technology II	3	2
		403210	Biochemistry II	3	2
		403211	Pharmacognosy III	2	2
		403212	Pharmacy Ethics	1	----
4th	1st	404101	Pharmacology II	3	2
		404102	Organic Pharm. Chemistry II	3	2
		404103	Clinical Pharmacy I	2	2
		404104	Biopharmaceutics	2	2
		404105	Public Health	2	----
		404106	English Language II	1	----
	2nd	404207	Pharmacology III	2	----
		404208	Organic Pharm. Chemistry III	3	2
		404209	Clinical Pharmacy II	2	2
		404210	General Toxicology	2	2
		404211	Industrial Pharmacy I	3	2
		404212	Communication Skills	2	----
		404213	English Language	1	----
5th	1st	405101	Organic Pharm. Chemistry IV	2	----
		405102	Industrial Pharmacy II	3	2
		405103	Applied Therapeutics- I	3	-----
		405104	Clinical Chemistry	3	2
		405105	Clinical Laboratory Training	----	4
		405106	Clinical Toxicology	2	2
		405107	Graduation project	1	----
	2nd	405208	Pharmacoeconomic	2	----
		405209	Applied Therapeutics- II	2	----
		405210	Therapeutic Drug Monitoring (TDM)	2	2
		405211	Advanced Pharmaceutical Analysis	3	2
		405212	Hospital Training	----	4
		405213	Dosage Form Design	2	----
		405214	Pharmaceutical Biotechnology	1	----

8. Expected learning outcomes of the program

➔ Knowledge

Outcome Learning 1	To be able to use different techniques for preparing medicines and chemicals
Outcome Learning 2	Knowledge of the mechanisms of action of drugs and Knowing the factors affecting the biological activity, solubility, stability, side effects, duration of action of the drug
Outcome Learning 3	To be able know different diseases and treatment (causes, symptoms, diagnosis and treatment)
Outcome Learning 4	Identify semi- manufactured medications that are extracted from Natural sources. Identify the types and forms of medicines.

➔ Skills

Outcome Learning 1	To be able to isolate and purify active ingredients in order to treat diseases, use their knowledge to prescribe medicinal supplements , know their classification , mechanism and side effects
Outcome Learning 2	Acquisition of skill in the use of various methods of preparation and manufacture of chemical compounds and how to maintain stability for as long as possible
Outcome Learning 3	Acquisition of skill in separation of compounds
Outcome Learning 4	To be able for Communication with patients education about medications for patients

➔ Values

Outcome Learning 1	Cultivating ethical values for the correct treatment of patients with minimal side effects
Outcome Learning 2	Learn about medicines and their derivatives, performing laboratory analyzes
Outcome Learning 3	Thinking skills through translating, analyzing, evaluating and extracting ideas
Outcome Learning 4	Instilling moral values for correct dealing with patients

9. Teaching and Learning Strategies

Using data show devices and showing lecture slides	Conducting scientific discussions in class and presenting seminars	Mid-term and final examination
View scientific videos	Surprise quizzes	Encouraging reading books, research, and doing research
Giving homework	Conducting scientific experiments, performing seminars, and writing reports	Participate in workshops

10. Evaluation Methods

Written examination	Homework
oral examination	Participate in workshops
Class discussions	

11. Staff

Titles	Specialist		Required Skills (if any)	Numbers	
	General	Specific		Staff	Lec
Prof	1	Biochemistry	No	1	
Ass. Prof	5	Pharmaceutics Pharmacology Biology	No	4	1
Lecturers	7	Pharmacognosy Pharmacology & therapeutics Pharmacology & toxicology Pharmaceutical chemistry Clinical pharmacy Pharmaceutics	No	6	**1**
Ass. Lecturers	24	Pharmacology & toxicology Pharmaceutical chemistry Clinical pharmacy Pharmaceutics Clinical chemistry Biochemistry Pharmacognosy Computer science Analytical chemistry Rabic Language	No	20	4
Lab Staff.	3	Pharmacy science	No	3	

Professional Development

Guidance for New Faculty Members

New faculty members are often provided with an orientation program that introduces them to the institution's mission, values, policies, and resources. This may include sessions on campus facilities, IT services, and support services available to faculty. Workshops or seminars may be offered to new faculty on topics such as effective teaching strategies, research methodologies, grant writing, or navigating academic publishing.

Professional Development for Faculty Members

Institutions often provide workshops, seminars, and resources to help faculty members improve their teaching skills.
Faculty members are encouraged to regularly assess student learning outcomes to ensure the effectiveness of their teaching methods.
Faculty members receive assistance in securing research funding, navigating the grant application process, and accessing institutional resources such as laboratories, libraries, and research centers. Collaboration with other faculty members and interdisciplinary research initiatives may also be encouraged.

12. Admission Criteria

Central Admission Committee in the higher education & Scientific Research Ministry according to students marks

13. Key Sources of Information about the Program

- The Pharmacy Dean's Committee
- College of pharmacy syllabus

14. Program Development Plan

Books, central library, internet, hospitals and laboratories, scientific research

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	B 4	C1	C2	C3	C4
1st	1st	401101	Human biology	Primary		√	√		√	√			√		√	
		401102	Principles of Pharmacy Practice	Primary	√	√				√	√		√	√	√	
		401103	Analytical Chemistry	Primary	√	√		√	√	√	√		√	√	√	
		401104	Medical Terminology	Primary		√	√				√	√	√	√	√	
		401105	Mathematics and Biostatistics	Primary	√	√				√			√		√	
		401106	Computer Sciences I	Primary	√	√				√			√		√	
		401107	English Language I	Primary		√						√	√		√	
		401108	Democracy & human right	Primary			√					√	√	√	√	√
	2nd	401208	Human Anatomy	Primary		√	√		√			√	√	√		√
		401209	Pharmaceutical Calculations	Primary	√	√			√	√			√	√	√	
		401210	Medical Physics	Primary	√			√	√	√			√	√	√	
		401211	Organic Chemistry I	Primary	√	√		√	√	√	√		√	√	√	
		401212	Histology	Primary		√	√	√	√			√	√	√	√	
		401213	Computer Sciences II	Primary	√	√					√	√	√		√	
		401214	Arabic Language	Primary		√	√					√	√	√	√	√
2nd	1st	402101	Organic Chemistry II	Primary	√	√		√	√	√	√		√	√	√	
		402102	Medical Microbiology I	Primary		√	√		√		√		√	√		√

	402103	**Physical Pharmacy I**	Primary	√	√			√	√	√		√	√		√
	402104	**Physiology I**	Primary	√	√	√	√	√	√	√	√	√	√	√	√
	402105	**Democracy**	Primary			√	√	√	√		√	√	√	√	√
	402106	**Computer Sciences III**	Primary			√	√	√	√			√	√	√	
	401214	**جرائم حزب البعث البائد**	Primary			√	√			√	√	√	√	√	√
2nd	402208	**Organic Chemistry III**	Primary	√	√		√	√	√	√		√	√	√	
	402209	**Medical Microbiology II**	Primary	√	√	√	√	√	√	√	√	√	√	√	√
	402210	**Physical Pharmacy II**	Primary	√	√	√	√	√	√	√	√	√	√	√	√
	402211	**Physiology II**	Primary			√	√	√	√	√	√	√	√	√	√
	402212	**Pharmacognosy I**	Primary		√		√	√	√	√		√	√	√	√
	402213	**Computer Sciences IV**	Primary	√	√	√	√	√	√	√	√	√	√	√	√
	402214	**Arabic Language**	Primary								√	√	√	√	√
3rd **1st**	403101	**Inorganic Pharmaceutical Chemistry**	Primary	√	√		√	√	√	√		√	√	√	√
	403102	**Pharmacognosy II**	Primary	√	√		√	√	√	√		√	√	√	√
	403103	**Pharmaceutical Technology I**	Primary	√	√	√		√	√	√		√	√	√	√
	403104	**Biochemistry I**	Primary	√	√	√	√	√		√		√	√	√	√
	403105	**Pathophysiology**	Primary	√	√	√	√	√		√	√	√	√	√	√
2nd	403207	**Organic Pharm. Chemistry I**	Primary	√	√		√	√	√	√		√	√	√	√
	403208	**Pharmacology I**	Primary		√	√		√			√	√	√	√	√
	403209	**Pharm. Technology II**	Primary	√	√	√		√	√	√		√	√	√	√
	403210	**Biochemistry II**	Primary	√	√	√	√	√		√		√	√	√	√
	403211	**Pharmacognosy III**	Primary		√		√	√	√	√		√	√	√	√
	403212	**Pharmacy Ethics**	Primary		√	√			√		√	√	√	√	√

4th	1st	404101	**Pharmacology II**	Primary		√	√		√			√	√	√	√	√
		404102	**Organic Pharm. Chemistry II**	Primary	√	√		√	√	√	√		√	√	√	√
		404103	**Clinical Pharmacy I**	Primary		√	√			√		√	√	√	√	√
		404104	**Biopharmaceutics**	Primary	√	√		√	√	√	√		√	√	√	√
		404105	**Public Health**	Primary		√	√			√		√	√	√	√	√
		404106	**English Language II**	Primary			√					√	√	√	√	√
		404207	**Pharmacology III**	Primary		√	√		√	√		√	√	√	√	√
	2nd	404208	**Organic Pharm. Chemistry III**	Primary	√	√		√	√	√	√		√	√	√	√
		404209	**Clinical Pharmacy II**	Primary		√	√			√		√	√	√	√	√
		404210	**General Toxicology**	Primary		√	√	√	√	√			√	√	√	√
		404211	**Industrial Pharmacy I**	Primary	√	√		√	√	√	√		√	√	√	√
		404212	**Communication Skills**	Primary		√	√		√			√	√	√	√	√
		404213	**English Language**	Primary		√						√	√	√	√	√
		405101	**Organic Pharm. Chemistry IV**	Primary	√	√		√	√	√	√		√	√	√	√
		405102	**Industrial Pharmacy II**	Primary	√	√		√	√	√	√		√	√	√	√
5th	1st	405103	**Applied Therapeutics- I**	Primary		√	√			√		√	√	√	√	√
		405104	**Clinical Chemistry**	Primary	√	√	√		√	√		√	√	√	√	√
		405105	**Clinical Laboratory Training**	Primary	√	√	√		√	√		√	√	√	√	√
		405106	**Clinical Toxicology**	Primary		√	√		√	√			√	√	√	√
		405107	**Graduation project**	Primary	√	√	√	√	√	√	√	√	√	√	√	√
		405208	**Pharmacoeconomic**	Primary	√	√	√			√	√	√	√	√	√	√
		405209	**Applied Therapeutics- II**	Primary		√	√			√		√	√	√	√	√
	2nd	405210	**Therapeutic Drug Monitoring (TDM)**	Primary		√	√			√		√	√	√	√	√

	405211	**Advanced Pharmaceutical Analysis**	Primary	√	√		√	√	√	√		√	√	√	√
	405212	**Hospital Training**	Primary		√	√			√		√	√	√	√	√
	405213	**Dosage Form Design**	Primary	√	√			√	√	√		√	√	√	√
	405214	**Pharmaceutical Biotechnology**	Primary	√	√	√		√	√			√	√	√	√
	404101	**Pharmacology II**	Primary		√	√		√	√		√	√	√	√	√
	404102	**Organic Pharm. Chemistry II**	Primary	√	√		√	√	√	√		√	√	√	√

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Course Description (57)

1. Course Title	Clinical chemistry
2. Course Code	405104
3. Semester/Year	First semester 2026-2025
4. Description Preparation Date	2025
5. Available Attendance Form	Attendance at the college
6. No. of Hours (Total)	Theoretical: 3 hours per week for 15 weeks Practical: two hours per week for 15 weeks
7. No. of Credits (Total)	4 units
8. Course Administrator Name	**A.lec Mohaned faris raheem**
9. E-mail	**mohaned.f@albayan.edu.iq**

10. Course Objectives

Helping to understand the principles of clinical chemistry

Providing the student with the information and some skills necessary to conduct future studies, such as analyzing results and documents and using the Internet

Providing a solid foundation for a successful career

Ability to prepare seminars on advanced clinical chemistry

Preparing the student how to conduct research in the field of clinical chemistry

Knowledge	**A1**	Statement of basic knowledge and principles in clinical chemistry
	A2	Enabling students to become familiar with the most important sources a references in clinical chemistry
	A3	Conducting practical experiments on theoretical concepts
	A4	Preparing reports on clinical chemistry topics
Skills	**B1**	Enabling the student to identify the normal levels of vital indicators within human body
	B2	Scientific reports
	B3	Participate in scientific discussions, workshops and conferences

	B4	
Values	**C1**	Enhancing the spirit of cooperation at work
	C2	Consolidating professional and ethical values among students
	C3	Training students in professional humanitarian work
	C4	

11. Teaching and Learning Strategies

1.	Writing self-reports	**4.**	Conducting practical and scientific experiments
2.	Discuss group work	**5.**	Semester and final exams
3.	Quizzes	**6.**	homework

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3	Giving students knowledge and encouraging them On reading	Liver function	Recruit Eldata show and Other means of explanation	Monthly written exams Oral exams
2	3	Giving students knowledge and encouraging them On reading	Calcium Metabolism	Recruit Eldata show and Other means of explanation	Monthly written exams Oral exams
3	3	Giving students knowledge and encouraging them On reading	Kidney +calcium	Recruit Eldata show and Other means of explanation	Monthly written exams Oral exams
4	3	Giving students knowledge and encouraging them On reading	endocrinology	Recruit Eldata show and Other means of explanation	Monthly written exams Oral exams
5	3	Giving students knowledge and encouraging them On reading	Hypothalamus	Recruit Eldata show and Other means of explanation	Monthly written exams Oral exams
6	3	Giving students knowledge and encouraging them On reading	Adrenal gland	Recruit Eldata Show and Other means of explanation	Monthly written exams Oral exams
7	3	Giving students knowledge and encouraging them On reading	Reproductive System	Recruit Eldata show and Other means of explanation	Monthly written exams Oral exams
8	3	Giving students knowledge and encouraging them	Pregnancy	Recruit Eldata show and Other means of explanation	Monthly written exams Oral exams

		On reading			
9	3	Giving students knowledge and encouraging them On reading	Hyperlipidemia	Recruit Eldata show and Other means of explanation	Monthly written exams Oral exams
10	3	Giving students knowledge and encouraging them On reading	Hyperlipidemia	Recruit Eldata show and Other means of explanation	Monthly written exams Oral exams
11	3	Giving students knowledge and encouraging them On reading	Tumor markers	Recruit Eldata Show and Other means of explanation	Monthly written exams Oral exams
12	3	Giving students knowledge and encouraging them On reading	carbohydrates	Recruit Eldata Show and Other means of explanation	Monthly written exams Oral exams
13	3	Giving students knowledge and encouraging them On reading	carbohydrates	Recruit Eldata Show and Other means of explanation	Monthly written exams Oral exams
14	3	Giving students knowledge and encouraging them On reading	Acid-base balance	Recruit Eldata Show and Other means of explanation	Monthly written exams Oral exams
15	3	Giving students knowledge and encouraging them On reading	Clinical enzymology	Recruit Eldata Show and Other means of explanation	Monthly written exams Oral exams

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Clinical chemistry crook.8edition.2013
Main References (sources)	Clinical chemistry crook.8edition.2013
Recommended Books & References (Scientific Journals, Reports …)	Clinical chemistry marshal.8edition.2016
Websites or Electronic References	Google scholar, PubMed, science direct

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Course Description (58)

1. Course Title	**Laboratory training**
2. Course Code	405105
3. Semester/Year	Annual
4. Description Preparation Date	2025

5. Available Attendance Form	Attendance inside the hospital
6. No. of Hours (Total)	4 hours a week for 30 weeks
7. No. of Credits (Total)	2 units
8. Course Administrator Name	Asst. Lect. Mohaned faris raheem
9. E-mail	**mohaned.f@albayan.edu.iq**

10. Course Objectives :

Helping to understand chemical and biological analyses Providing a solid foundation for a successful career Providing the student with some basic skills that may be necessary for future studies, such as analyzing results and documents and using the Internet.

Enables you to prepare seminars related to the training material

Knowledge	**A1**	Theoretical application to practical experiments
	A2	Statement of basic knowledge and principles in hospital training subject
	A3	
	A4	
Skills	**B1**	Preparing students' research projects
	B2	Practical reports
	B3	Holding conferences and workshops and participating in scientific discussions
	B4	
Values	**C1**	Educating students in professional humanitarian work
	C2	Promoting and consolidating professional and ethical values among stude practicing the profession of pharmacist

	C3	Promote the spirit of cooperation and teamwork upon request
	C4	Training students to respect the freedom of thought, expression, and creativity others

11. Teaching and Learning Strategies

1.	Using data show devices and showing lecture slides	**4.**	Conducting scientific discussions in class and presenting seminars
2.	View scientific videos on toxicology	**5.**	Surprise quizzes
3.	Giving homework	**6.**	Conducting seminars and writing reports

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	4	**Enhancing the student's practi side**	**Testing basics Diagnostic, sample collection and transport, venipuncture, urine samples, stool samples.**	**Theoretical and practical application**	**Reports and exams**
2	4	**Enhancing the student's practi side**	**Testing basics Diagnostic, sample collection and transport, venipuncture, urine samples, stool samples.**	**Theoretical and practical application**	**Reports and exams**
3	4	**Enhancing the student's practi side**	**Biochemical tests: Fasting blood glucose, postprandial glucose**	**Theoretical and practical application**	**Reports and exams**
4	4	**Enhancing the student's practi side**	**Oral glucose tolerance test.**	**Theoretical and practical application**	**Reports and exams**
5	4	**Enhancing the student's practi side**	**Blood urea, blood creatinine**	**Theoretical and practical application**	**Reports and exams**
6	4	**Enhancing the student's practi side**	**Creatinine clearance, uric acid.**	**Theoretical and practical application**	**Reports and exams**
7	4	**Enhancing the student's practi side**	**Cholesterol and lipoproteins**	**Theoretical and practical application**	**Reports and exams**
8	4	**Enhancing the student's practi side**	**Triglyceride.**	**Theoretical and practical application**	**Reports and exams**
9	4	**Enhancing the student's practi side**	**Blood proteins**	**Theoretical and practical application**	**Reports and exams**
10	4	**Enhancing the student's practi side**	**Bilirubin.**	**Theoretical and practical application**	**Reports and exams**
11	4	**Enhancing the student's practi side**	**Calcium and inorganic phosphate**	**Theoretical and practical application**	**Reports and exams**

12	4	**Enhancing the student's practi side**	**Serum chloride**	**Theoretical and practical application**	**Reports and exams**
13	4	**Enhancing the student's practi side**	**Alkaline phosphatase, acid phosphatase, alanine aminotransferase**	**Theoretical and practical application**	**Reports and exams**
14	4	**Enhancing the student's practi side**	**Aspartate aminotransferase, lactate dehydrogenase, creatine phosphokinase.**	**Theoretical and practical application**	**Reports and exams**
15	4	**Enhancing the student's practi side**	**Serological tests: VDRL**	**Theoretical and practical application**	**Reports and exams**
16	4	**Enhancing the student's practi side**	**ASO- Titer and Hepatitis Tests.**	**Theoretical and practical application**	**Reports and exams**
17	4	**Enhancing the student's practi side**	**C-reactive protein test Rheumatoid factor test, rose bengal test**	**Theoretical and practical application**	**Reports and exams**
18	4	**Enhancing the student's practi side**	**Typhoid fever test (test Widal, pregnancy test.**	**Theoretical and practical application**	**Reports and exams**
19	4	**Enhancing the student's practi side**	**General urine examination**	**Theoretical and practical application**	**Reports and exams**
20	4	**Enhancing the student's practi side**	**General stool examination**	**Theoretical and practical application**	**Reports and exams**
21	4	**Enhancing the student's practi side**	**Blood tests: red blood cell count, hemoglobin , PCV, balls indicators Red blood, urine samples collection.**	**Theoretical and practical application**	**Reports and exams**
22	4	**Enhancing the student's practi side**	**Blood classification, test**	**Theoretical and practical application**	**Reports and exams**
23	4	**Enhancing the student's practi side**	**Bleeding time**	**Theoretical and practical application**	**Reports and exams**
24	4	**Enhancing the student's practi side**	**Pigmentation methods**	**Theoretical and practical application**	**Reports and exams**
25	4	**Enhancing the student's practi**	**Culture and sensitivity tests**	**Theoretical and**	**Reports and exams**

		side		**practical application**	
26	4	**Enhancing the student's practi side**	**Agricultural media**	**Theoretical and practical application**	**Reports and exams**
27	4	**Enhancing the student's practi side**	**Methods of diagnosing bacteria**	**Theoretical and practical application**	**Reports and exams**
28	4	**Enhancing the student's practi side**	**Disc diffusion test of sensitivity To antibiotics**	**Theoretical and practical application**	**Reports and exams**
29	4	**Enhancing the student's practi side**	**Drug test to check the disc**	**Theoretical and practical application**	**Reports and exams**
30	4	**Enhancing the student's practi side**	**Drug testing to screen for diseases Bacterial**	**Theoretical and practical application**	**Reports and exams**

13. Course Evaluation	
Semester pursuit: 40 marks Final exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	Google scholar, PubMed

جامعة البيان

Course Description (24)

1. Course Title	**Medical microbiology 2**
2. Course Code	**402209**
3. Semester/Year	**2026-2025**
4. Description Preparation Date	**2025-9-20**
5. Available Attendance Form	**Attendance at collage**
6. No. of Hours (Total)	**Theoretical:3Hr per week for 15 weeks** **Practical:2Hr per week for 15 weeks**
7. No. of Credits (Total)	**4 units**
8. Course Administrator Name	**Lect. weam wael**
9. E-mail	**weam.w@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	ɒw the rules of parasitic infections and know the types and strains of parasites d how to diagnose them
	A2	ɒw the characteristic of the morphological and anatomical structure of viruses well as classify them according to genome type
	A3	The use of the drug affecting viruses in order to eliminate it and prevent its spread, especially epidemic viruses
	A4	owledge, guidance and health awareness through the methods of transmission and source of infection Continuous follow-up of health recommendations and instructions issued by higher medical authorities and follow-up of the latest scientific developments and medical in order to control and eliminate epidemic diseases and prevent their spread globally
Skills	**B1**	Knowing the rules of parasitic and viral infections and knowing the types of parasites and viral strains and how to diagnose them and the use of the drug affecting parasites and viruses in order to eliminate it and prevent its spread

	B2	e graduate's full scientific knowledge about dangerous epidemic diseases such as Ebola, Lhasa or AIDS and other diseases thal and how to control it and prevent its spread and the use of the appropriate drug for it and provide guidance and health awareness to the individual to prevent To prevent its spread according to international medical mechanisms and advi the graduate must be fully aware of these recommendations
	B3	Know the characteristic of the morphological and anatomical structure parasites and viruses as well as their classification by genome type
	B4	In-depth study of vaccines and how to manufacture them and the use of the b modern scientific methods to produce a vaccine at the lowest cost, free of s effects, purity and high effectiveness of the importance of vaccines at the pres time as a key factor to reduce the spread of diseases
Values	C1	Educating students on professional humanitarian work
	C2	Promote collaboration and teamwork upon request
	C3	Promoting and consolidating professional and ethical values among students to practice the profession of pharmacist
	C4	Develop a sense of responsibility among students during the study period a during work

11. Teaching and Learning Strategies

1.	**Oral exams**	4.	**Giving theoretical lectures**
2.	**Actual training in hospitals and direct access to the types of forms sent, the method of examination and evaluation and the optimal diagnosis** **And identify the type of pathological bacteria and study**	5.	**Holding conferences, seminars and seminars**

	their characteristics and how to identify them		
3.	**Giving homework**	**6.**	**Technical education in the laboratory through practical material**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Student Acquisition Information in the field of parasites to Required level	roduction and classification of the human parasites. .	use Scientific references And the use of t painting and th data show and t explanatory videos	Exams Editorial Daily
2	2	Student Acquisition Information in the field of parasites to Required level	Intestinal protoz Entamoeba histolytica	use Scientific references And the use of t painting and t data show and t explanatory videos	Exams Editorial Daily
3	2	Student Acquisition Information in the field of parasites to Required level	mmensal amoeba; tamoeba coli ; Endolimax nana ; Iodomoeba buetschillii .	use Scientific references And the use of t painting and t data show and t explanatory	Exams Editorial Daily

				videos	
4	2	Student Acquisition Information in the field of parasites to Required level	gellate of digestive tract: Giardia lamblia ; Chilomastix mesenili	use Scientific references And the use of t painting and the da show and t explanatory videos	Oral exam
5	2	Student Acquisition Information in the field of parasites to Required level	gellate of genital organs: richomonas vaginalis ; Ciliate protozoa; Balantidium coli.	use Scientific references And the use of t painting and t data show and t explanatory videos	Oral exam
6	2	Student Acquisition formation in the field of parasites to Required level	gellate of blood and tissues: Leishmania donovani ; Leishmania tropica .	use Scientific references And the use of t painting and t data show and t explanatory videos	Oral exam
7	2	Student Acquisition Information in the field of parasites to Required level	ypanosoma gambiens ; Trypanosome rhodesiense ; Trypanosoma cruzi . .	use Scientific references And the use of t painting and t	Oral exam

				data show and t explanatory videos	
8	2	Student Acquisition Information in the field of parasites to Required level	larial parasite: Life cycle of Plasmodium species; Plasmodium vivax Plasmodium falciparum	use Scientific references And the use of t painting and t data show and t explanatory videos	Oral exam
9	2	Student Acquisition Information in the field of parasites to Required level	smodium malariae ; Plasmodium ovali .	use Scientific references And the use of t painting and t data show and t explanatory videos	Exams Editorial Daily
10	2	Student Acquisition Information in the field of parasites to Required level	xoplasma gondii ; Cestoidea; Taenia saginata ; Taenia solium .	use Scientific references And the use of t painting and t data show and t explanatory videos	Exams Editorial Daily
11	2		menolepis nana ;	use	Exams

		Student Acquisition Information in the field of parasites to Required level	hinococcus granulosus ; Echinococcus multilocularis . .	Scientific references And the use of t painting and t data show and t explanatory videos	Editorial Daily
12	2	Student Acquisition Information in the field of parasites to Required level	ematoda: Life cycle of Schistoma species; Schistoma japonicum ; Schistoma mansoni ; Schisto haematobium	use Scientific references And the use of t painting and t data show and t explanatory videos	Exams Editorial Daily
13	2	Student Acquisition Information in the field of parasites to Required level	matoda: Trichurs chuira ; Entrobius vermicularis .	use Scientific references And the use of t painting and t data show and t explanatory videos	Oral exam
14	2	Student Acquisition Information in the field of parasites to Required level	Ascaris lumbricoides Ancylostoma duodenale	use Scientific references And the use of t painting and t	Homework

				data show and t explanatory videos	
15	2	Student Acquisition Information in the field of parasites to Required level	Methods of diagnosis parasites.	use Scientific references And the use of t painting and t data show and t explanatory videos	Home work

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect)End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Review of Medical microbiology and immunology, Warren Levinson**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	**Youtube, elsiver , wikibidia**
Websites or Electronic References	**NCBI,WHO**

جامعة البيان

Course Description (17)

1. Course Title	**Medical Microbiology 1**
2. Course Code	**402102**
3. Semester/Year	**2023-2025**
4. Description Preparation Date	**2025-9-20**
5. Available Attendance Form	**Attendance at the collage**
6. No. of Hours (Total)	**Theoretical:2Hr per week for 15 weeks** **Practical:2Hr per week for 15 weeks**
7. No. of Credits (Total)	**4 units**
8. Course Administrator Name	**Lect. weam.wael**
9. E-mail	**weam.w@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Preparing the graduate to deal properly and know the sound medical foundatic in dealing with patients as well as with both the specialized staff and the train staff in order to reach the best ways to serve the patient
	A2	Give the student full knowledge of medical information and how to deliver it to patient using the method of culture and health awareness to prevent diseas directly and indirectly
	A3	Making the graduate have the ability to diagnose microbial in educational a diagnostic laboratories in the Ministry of Health and in private laboratories as w as in the quality control laboratories of pharmaceutical laboratories
	A4	Using health awareness and guidance on how to use sterilizers and disinfecta and warning of the wrong method and the side effects it causes that may leac pathological conditions on the patient's health
Skills	**B1**	To know fully about the rules of bacterial infections and know the types bacterial strains and how to diagnose them
	B2	The use of the drug that affects pathogenic bacteria according to internationally applicable allergy test

	B3	Knowing the characteristic of each pathological bacterium from the formal a anatomical aspects and using the best diagnostic methods applied globally
	B4	Full knowledge of how to control and prevent epidemic infection as a result bacterial infection
Values	C1	Educating students on professional humanitarian work and developing a sense responsibility among students during the study period and during work
	C2	Promoting and consolidating professional and ethical values among students to practice the profession of pharmacist
	C3	Promote collaboration and teamwork upon request
	C4	Training students to respect the freedom of thought, expression and creativity others

11. Teaching and Learning Strategies

1.	**Oral exams**	4.	**Holding conferences, seminars and seminars**
2.	**Giving theoretical lectures**	5.	**Technical education in the laboratory through practical material**
3.	**Actual training in hospitals and direct access to the types of forms sent, the method of examination and evaluation and the optimal diagnosis And identify the type of pathological bacteria and study their characteristics and how to identify them**	6.	**Giving homework**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	tudents acquire knowledge in the field of Laboratories and the mechanism of their safe use to the required level. W mastery of the use of microscope	Orientation to the laborato Rules of conduct and gene safety. Microscopic techniqu Bright-field light microscope	Data Show with clarification of the tools through its presentation	Exams Editorial Daily
2	2	The student acqui information abo pigmentation of bacteria a watching them on microscope	amination of stained croorganisms; Smear preparation and mple staining; Gram staining. .	Data Show W Clarity of T To Throg l Presentation	Exams Editorial Daily
3	2	Student Acquisition Information in the field of Microbiology into Required level	The hanging drop slide and bacterial motility; Acid-fast staining procedure	Data Show W Clarity of T To Throg l Presentation	Exams Editorial Daily
4	2	The student acqui information and benefits bacterial spores and t mechanism of pigmentation	cterial spores and dospores staining; Microbiological culture edia and sterilization; ethods of inoculation and	Data Show and practi experience throu groups	Exams Editorial Daily

			isolation of pure culture.		
5	2	tudents acquire knowledge in the field of Microbiology to the requir level and the use antibiotics	tion of dyes and antibiotics; zymes assays for some specific microbial enzymes.	Data Show a practical experience through groups	Oral exam
6	2	Students acquire knowledge in the field of Microbiology to t required level a clinical testing	Assays for specific metabo activities; Acid and g production from: Carbohydra fermentation; Triple sugar ir agar te IMVIC tests.	Data Show a practical experience through groups	Oral exam
7	2	tudents acquire knowledge in the field of Microbiology to the requir level and knowledge of t characteristics of t bacterial strain	Systemic bacteriology: Staphylococci spp.	Data Show a explanatory videos	Oral exam
8	2	tudents acquire knowledge in the field of Microbiology to the requir level and knowledge of t characteristics of t bacterial strain	Streptococci species.	Data Show a explanatory videos	Exams Editorial Daily
9	2	tudents acquire knowledge	Salmonella species	Data Show a	Exams

		in the field of Microbiology to the requir level and knowledge of t characteristics of t bacterial strain		explanatory videos	Editorial Daily
10	2	tudents acquire knowledge in the field of Microbiology to the requir level and knowledge of t characteristics of t bacterial strain	Shigella species	Data Show a explanatory videos	Oral exam
11	2	tudents acquire knowledge in the field of Microbiology to the requir level and knowledge of t characteristics of t bacterial strain	Pseudomonas species	Data Show a explanatory videos	Oral exam
12	2	tudents acquire knowledge in the field of Microbiology to the requir level and knowledge of t characteristics of t bacterial strain	Proteus species	Data Show a explanatory videos	Exams Editorial Daily
13	2	tudents acquire knowledge in the field of Microbiology to the requir level and knowledge of t characteristics of t	Escherichia coli	Data Show a explanatory videos	Exams Editorial Daily

		bacterial strain			
14	2	tudents acquire knowledge in the field of Microbiology to the requir level and knowledge of t characteristics of t bacterial strain	Klebsiella species.	Data Show a explanatory videos	Exams Editorial Daily
15	2	tudents acquire knowledge in the field of Microbiology to the requir level and knowledge of t characteristics of t bacterial strain	Candida albicans	Data Show a explanatory videos	Oral exam

13. Course Evaluation	
Semesterpursuit:40marks(20theoreticalaspect+20practicalaspect) Endofsemesterexam:60marks....	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Jawetz Melnick&Adelbergs Medical microbiology 28E**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	**Power point , youtube, elsiver**
Websites or Electronic References	**NCBI, WHO**

جامعة البيان

Course Description (27)

1. Course Title	**Pharmacognosy and phytotherapy** **Pharmacognosy I**
2. Course Code	**402212**
3. Semester/Year	**2026-2025**
4. Description Preparation Date	2025
5. Available Attendance Form	**Attendance at the college**
6. No. of Hours (Total)	Theoretical: three hours per week for 15 weeks Practical: two hours per week for 15 weeks
7. No. of Credits (Total)	**4 units**
8. Course Administrator Name	**Lect. Dr. RUAA AZIZ JASSIM** **Lect. FARAH FAWZI**
9. E-mail	**ruaa.aziz@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	study drugs and medicinal plants, studying plant chemistry which includ extraction and isolation of active compounds from natural products, and rais students' awareness of the importance of plant compounds in medicine a nutrition.
	A2	
	A3	
	A4	
Skills	**B1**	Enhancing communication skills with patients and medical staff during treatm phases.
	B2	Empowering students to possess skills in preparing medications derived fr plants.

	B3	Laboratory experiments
	B4	
Values	C1	Introducing students to the importance of active ingredients found within plants
	C2	How to extract active ingredients using the latest modern scientific methods
	C3	
	C4	

11. Teaching and Learning Strategies

1.	**Quizes and oral exam.**	4.	**Encouraging reading books, research, and doing research Organizing conferences and seminars**
2.	**Using data show devices and showing lecture slides**	5.	**Surprise quizzes**
3.	**Conducting scientific experiments, performing seminars, and writing reports**	6.	**Participate in workshops, conferences**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3	Scope of pharmacognosy	General Introduction: The Scope Pharmacognosy, definitions and basic principle	Data show	theoretical exam, Class discussions
2	3	Drugs, official and nc offficial drugs	Drugs from natural sourc crud drugs, official and nc official drugs.	Data show	theoretical exam, Class discussions
3	3	Classification of natural products	Classification of natu products.	Data show	theoretical exam, Class discussions
4	3	taxonomy	Plant nomenclature a taxonomy.	Data show	theoretical exam, Class discussions
5	3	Production of crude drug	Production of crude dru Cultivation, collection, dryi and storage	Data show	theoretical exam, Class discussions
6	3	deterioration	Deterioration of crude natu products.	Data show	theoretical exam, Class discussions
7	3	Natural prodect	Chemistry of natural dr products.	Data show	theoretical exam, Class discussions
8	3	Quality control	Quality control: Evaluation of natural produ macroscopical evaluation; physical evaluat chemical evaluation;	Data show	theoretical exam, Class discussions
9	3	extraction	Phytochemical investigation herbal products: Extraction the plant material; Separati and isolation of constituents	Data show	theoretical exam, Class discussions

10	3	chromatography	Separation technique: Introduction; Mechani of separation and classification based on type of technique;	Data show	theoretical exam, Class discussions
11	3	chromatography	Thin layer chromatography;	Data show	theoretical exam, Class discussions
12	3	chromatography	Ion-exchange chromatograph Gel filtration chromatograph	Data show	theoretical exam, Class discussions
13	3	chromatography	Column chromatography; C chromatography; HPLC;	Data show	theoretical exam, Class discussions
14	3	chromatography	Gas chromatography	Data show	theoretical exam, Class discussions
15	3	Tissue culture	Tissue culture of medicinal plant: Introduc and history; laboratory of the plant ti culture; aseptic techniques Application of plant tissue culture; environmental biological control; plant growth regulators.	Data show	theoretical exam, Class discussions

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Trease and Evans Pharmacognosy; 15th ed., 2009 for theoretical** **Practical Guide for Second Grade in Practical Pharmacology**
Main References (sources)	**Michael Heinrich, Joanne Barnes; Fundamentals of pharmacognosy and phytotherapy 2017**
Recommended Books & References (Scientific Journals, Reports …)	**Fundamentals of Pharmacology and Herbal Treatment**
Websites or Electronic References	**World health organization, FDA (U.S. Food and Drug Administration), NCBI**

جامعة البيان

Course Description (31)

1. Course Title	**Pharmacognosy and phytotherapy** **Pharmacognosy II**
2. Course Code	**403102**
3. Semester/Year	**2026-2025**
4. Description Preparation Date	2025
5. Available Attendance Form	**Attendance at the college**
6. No. of Hours (Total)	**Theoretical: three hours per week for 15 weeks** **Practical: two hours per week for 15 weeks**
7. No. of Credits (Total)	**3 units**
8. Course Administrator Name	**Lect. Dr. RUAA AZIZ JASSIM** **Lect. HASSAN ALAA-ALDIN**
9. E-mail	**ruaa.aziz@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Extraction and isolation of active components using standard methods.
	A2	Diagnosing and evaluating isolated substances using physical, chemical, a chromatographic methods, as well as studying phytotherapy and tissue cult techniques used in the production of natural products.
	A3	Discussing the therapeutic efficacy of the main varieties of plant compounds a their interactions with other medications.
	A4	Evaluating the use of plants and their products as medicinal materials a enabling students to acquire and understand methods of extracting and isolat active substances from plants.
Skills	**B1**	Enhancing communication skills with patients and medical staff during treatm phases.
	B2	Empowering students to possess skills in preparing medications derived fr

		plants.
	B3	Laboratory experiments
	B4	
Values	**C1**	Introducing students to the importance of active ingredients found within plants
	C2	How to extract active ingredients using the latest modern scientific methods
	C3	study drugs and medicinal plants, studying plant chemistry which includ extraction and isolation of active compounds from natural products, and rais students' awareness of the importance of plant compounds in medicine and food.
	C4	

11. Teaching and Learning Strategies

1.	**Quizes and oral exam.**	**4.**	**Encouraging reading books, research, and doing research Organizing conferences and seminars**
2.	**Using data show devices and showing lecture slides**	**5.**	**Surprise quizzes**
3.	**Conducting scientific experiments, performing seminars, and writing reports**	**6.**	**Participate in workshops, conferences**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Carbohydrates.	Carbohydrates., natural prodects	Data show	theoretical exam, Class discussions
2	2	lignans	Lignana	Data show	theoretical exam, Class discussions
3	2	Cumarin	Cumarin	Data show	theoretical exam, Class discussions
4	2	flavonoids	Flavonoids	Data show	theoretical exam, Class discussions
5	2	glycosides	Biosynthesis, physical a chemical properties glycosides	Data show	theoretical exam, Class discussions
6	2	glycosides	Types of g Isothiocyanate glycosides; aldehyde glycosides; alcoholic glycosides; phenolic glycosides; lactone glycosides; coumarins and chromones.glycosides cardiac glycosides; saponin glycosides; anthraquir glycosides; flavonoid glycosides; cyanopl lycosides.	Data show	theoretical exam, Class discussions
7	2	glycosides	Plants contain glycosides	Data show	theoretical exam, Class discussions
8	2	tannins	Tannins: types of tannins Plants contain tanins	Data show	theoretical exam, Class discussions
9	2	lipids	Lipids	Data show	theoretical exam, Class discussions

10	2	terpins	Terpins,	Data show	theoretical exam, Class discussions
11	2	Volatiles oils	Introduction; chemistry of volatile oils; biosynthesis of volatile oils;	Data show	theoretical exam, Class discussions
12	2	Volatiles oils	hydrocarbons as volatile oils; alcohols as volatile oils; aldehydes as volatile oils, Ketones as volat oils; Phenols as volatile oils; Oxides as volatile oils; Ester as volatile oils; Phenolic ethers volatile oils.	Data show	theoretical exam, Class discussions
13	2	Volatiles oils	Plants contain volatile oil	Data show	theoretical exam, Class discussions
14	2	resins	Resins and resin combinatio	Data show	theoretical exam, Class discussions
15	2	Non- medicinal toxic plants	Non- medicinal toxic plants	Data show	theoretical exam, Class discussions

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Trease and Evans Pharmacognosy; 15th ed., 2009 for theoretical** **Practical Guide for third Grade in Practical Pharmacology**
Main References (sources)	**Robbers JE, Speedie MK, Tyler VE (Eds.); Pharmacognosy and Pharmacobiotechnology; the latest edition.**
Recommended Books & References (Scientific Journals, Reports …)	**Fundamentals of Pharmacology and Herbal Treatment**
Websites or Electronic References	**World health organization, FDA (U.S. Food and Drug Administration), NCBI**

جامعة البيان

Course Description (39)

1. Course Title	**Pharmacognosy and phytotherapy** **Pharmacognosy III**
2. Course Code	**403211**
3. Semester/Year	**2026-2025**
4. Description Preparation Date	2025
5. Available Attendance Form	**Attendance at the college**
6. No. of Hours (Total)	Theoretical: two hours per week for 15 weeks Practical: two hours per week for 15 weeks
7. No. of Credits (Total)	**3 units**
8. Course Administrator Name	**Lect. Dr. RUAA AZIZ JASSIM** **Lect. HASSAN ALAA-ALDIN**
9. E-mail	**ruaa.aziz@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Chemistry of natural products is studied, specifically alkaloids and antibiotics.
	A2	Diagnosing and evaluating isolated substances using physical, chemical, a chromatographic methods.
	A3	Discussing the therapeutic efficacy of the main varieties of plant compounds a their interactions with other medications.
	A4	Assessing the use of plants and their products as medicinal materials, a enabling students to acquire and understand methods of extracting and isolat active substances from plants.
Skills	**B1**	Enhancing communication skills with patients and medical staff during treatm phases.

	B2	Empowering students to possess skills in preparing medications derived fr plants.
	B3	Laboratory experiments
	B4	
Values	C1	Introducing students to the importance of active ingredients found within plants
	C2	How to extract active ingredients using the latest modern scientific methods
	C3	
	C4	

11. Teaching and Learning Strategies

1.	**Quizes and oral exam.**	4.	**Encouraging reading books, research, and doing research Organizing conferences and seminars**
2.	**Using data show devices and showing lecture slides**	5.	**Surprise quizzes**
3.	**Conducting scientific experiments, performing seminars, and writing reports**	6.	**Participate in workshops, conferences**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3	alkaloids	Introduction; Physical and chem properties;.	Data show	theoretical exam, Class discussions
2	3	alkaloids	; pyridine, piperidine alkaloids	Data show	theoretical exam, Class discussions
3	3	alkaloids	tropane alkaloids	Data show	theoretical exam, Class discussions
4	3	alkaloids	Quinoline tropan alkaloids	Data show	theoretical exam, Class discussions
5	3	alkaloids	iso-quinoline alkaloids	Data show	theoretical exam, Class discussions
6	3	alkaloids	indole alkaloids	Data show	theoretical exam, Class discussions
7	3	alkaloids	imidazole alkaloids	Data show	theoretical exam, Class discussions
8	3	alkaloids	Steroidal alkaloids	Data show	theoretical exam, Class discussions
9	3	alkaloids	lupinane alkaloids; alkaloidal amines; pu alkaloids.	Data show	theoretical exam, Class discussions
10	3	antibiotics	Antibiotics: Natural sources;	Data show	theoretical exam, Class discussions
11	3	antibiotics	biosynthetic pathways of antibiotic	Data show	theoretical exam, Class discussions
12	3	antibiotics	isolation and purification of	Data show	theoretical exam,

			antibiotics classification of antibiotics		Class discussions
13	3	phytotherapy	phytotherapy :Introduction	Data show	theoretical exam, Class discussions
14	3	phytotherapy	principles,medicinal plants in selec health care systems	Data show	theoretical exam, Class discussions
15	3	phytotheraphy	phytomedcines used in pharmacy medicine	Data show	theoretical exam, Class discussions

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Robbers JE, Speedie MK, Tyler VE (Eds.); Pharmacognosy and Pharmacobiotechnology; the latest edition** **Practical Guide for third Grade in Practical Pharmacology**
Main References (sources)	**Michael Heinrich, Joanne Barnes; Fundamentals of pharmacognosy and phytotherapy 2017**
Recommended Books & References (Scientific Journals, Reports …)	**Fundamentals of Pharmacology and Herbal Treatment**
Websites or Electronic References	**World health organization, FDA (U.S. Food and Drug Administration), NCBI**

جامعة البيان

Course Description (9)

1. Course Title	**Human anatomy**
2. Course Code	**401208**
3. Semester/Year	**Second semester 2024-2025**
4. Description Preparation Date	**20/9/2024**
5. Available Attendance Form	**Presence only**
6. No. of Hours (Total)	**3**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Assistant lecturer Huda Jasim noori**
9. E-mail	huda.j@albayan.edu.iq
10. Course Objectives	

Knowledge	**A1**	Knowing the importance of physics in medicine and its sciences
		Knowledge of physical applications
		Knowledge of physical applications
		How medical devices work
		Get an overview of the nature of physical work
		Read medical tests and reports
		Knowing the disorders that appear in the tests
		Reading x-rays and tests
		A sense of responsibility towards the laboratory
		Knowing the importance of lectures and scientific material

		العمل على ترسيخ روح التعاون بين الطلبة
	A2	Working to consolidate the spirit of cooperation among students
	A3	rk mainly on basic subjects for students

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11. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1		**Circulatory system:** Location of vascular system (He Arteries, Veins)	Circulatory system 1	Presence only	Written and oral exam
2		:Circulatory system Location of lymphatic syst (Lymphatic capillary).	Circulatory system 2	Presence only	Written and oral exam
3		**Lymphoid tissue:** location of the (Thymus gla Spleen & Lymph nodes)	**Lymphoid tissue 1**	Presence only	Written and oral exam
4		Lymphoid nodule (MALT) Tonsils	**Lymphoid tissue 2**	Presence only	Written and oral exam
5		**Nervous system:** Central & Peripheral nervous syst by location	**Nervous system**	Presence only	Written and oral exam
6		**Respiratory system:** -Conducting portion (Nose, Nasopharynx, Trachea Bronchus & Bronchioles). -Respiratory portion (Lung	**Respiratory system**	Presence only	Written and oral exam
7		**Digestive system:** -location of different parts of digestive tract (GIT) (Oral cavity, Mouth, Esophagus & Stomach) -Small intestine, Large intesti Rectum & Anus.	**Digestive system 1**	Presence only	Written and oral exam

8		**Digestive system:** Glands associated with the digest tract by location (Salivary glar Pancreas, Liver & Gall bladder).	**Digestive system 2**	Presence only	Written and oral exam

12. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect)End of semester exam: 60 marks	
13. 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 (1)

1. Course Title	**Human biology**
2. Course Code	**401101**
3. Semester/Year	**First semester**
4. Description Preparation Date	**20-9-2025**
5. Available Attendance Form	**Attendance at the college**
6. No. of Hours (Total)	**Theoretical 2 hours per week** **Practical 2 hours per week**
7. No. of Credits (Total)	**3 Units**
8. Course Administrator Name	**Haider Abdul Hasan Jalil**
9. E-mail	**hayder.ab@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Enable the students to understanding and studying the biology of the hum body
	A2	Introducing the student and giving him all the scientific information related to types of cells and tissues found in the human body.
	A3	Statement of knowledge of biology
	A4	
Skills	**B1**	Conducting oral and written evaluation
	B2	Scientific reports
	B3	
	B4	
Values	**C1**	Surprising, inferential questions during the discussion
	C2	Conducting daily examinations for students
	C3	
	C4	

11. Teaching and Learning Strategies

1.	**Using the smart board**	**4.**	

2.	Display slides related to human biology on the data show and study them under a microscope	5.	
3.	Using the scientific references	6.	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Introduction to Human Biology	General information definitions, branches of Biology, levels of organization in the human body	Data show, slides, and blackboard	Discussion, written and oral exam
2	2	Nutrition-Part I	Definitions, important food molecules	Data show, slides, and blackboard	oral exam
3	2	Nutrition-Part II	Digestion.	Data show, slides, and blackboard	Discussion, written and oral exam
4	2	Cell and cell biology	Cell structure, cell types, cell jobs	Data show, slides, and blackboard	oral exam
5	2	Cell and cell biology	cell division and production of reproductive cells, Fertilization.	Data show, slides, and blackboard	Monthly written exam
6	2	Tissues-Part I	Epithelial tissues, Connective tissues	Data show, slides, and blackboard	oral exam
7	2	Tissues-Part II	Muscular tissues, Nervous tissues	Data show, slides, and blackboard	Daily written exam
8	2	Systems/Glandular System	Types of glands and their structure	Data show, slides, and blackboard	oral exam
9	2	Systems	Hormones and	Data show, slides,	Monthly written exam

			hormonal system, adulthood and reproduction	and blackboard	
10	2	Systems	Immune system: The parts and Job of the immune system	Data show, slides, and blackboard	Oral exam
11	2	Systems	Digestive system: The general structure of the system including its organs starting from the mouth to the anus, with their function.	Data show, slides, and blackboard	Monthly written exam
12	2	Systems	Circulatorysystem: The heart	Data show, slides, and blackboard	Oral exam
13	2	circulatory system	circulatory system components	Data show, slides, and blackboard	Oral exam
14	2	circulatory system	blood circulation	Data show, slides, and blackboard	Daily written exam
15	2	Review for the Final exam	Review for the Final exam	Data show, slides, and blackboard	Daily written exam

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Human Biology Douglas Wilkin, Ph.D** **Jean Brainard, Ph.D 2015**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

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Course Description (59)

1. Course Title	Clinical toxicology
2. Course Code	405106
3. Semester/Year	First semester (2024 – 2025)
4. Description Preparation Date	2025
5. Available Attendance Form	Attendance at the college
6. No. of Hours (Total)	Theoretical - two hours per week for 15 weeks Practical - two hours a week for 15 weeks
7. No. of Credits (Total)	3 units
8. Course Administrator Name	Asist.prof Kholoud Sadoun Lecturer Nibras Jamal
9. E-mail	Kholud.s@albayan.edu.iq Nibras.j@albayan.edu.iq

10. Course Objectives:

1- This course aims to train the student on how to deal with cases of poisoning and suicide, how to provide first aid, methods of prevention and treatment, and giving anti-poison drugs.

2- Study the toxic effects of over-the-counter medications such as aspirin and paracetamol, and methods of preventing and treating excessive doses and poisonings.

3- Studying cases of poisoning as a result of overdose or suicide with medications treating chronic diseases such as Parkinson's and Alzheimer's, and methods of prevention and treatment of overdose and poisoning cases.

4- Studying cases of poisoning as a result of excessive doses or suicide with sedatives, analgesics, and narcotic drugs

Methods of prevention, treatment, and administration of antidote drugs.

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Knowledge	A1	Cognitive description of the most important basics of general toxicology and their clinical applications
	A2	Ability to characterize the toxic state by analyzing laboratory results and evaluating clinical symptoms
	A3	The importance of conducting laboratory tests to clarify a specific toxicological condition and measure the level of the toxic substance in a sample Blood taken from an infected person.
	A4	Studying the toxic effects and resulting symptoms and diagnosing the drug causing that condition for the purpose of treatment by increasing the body's elimination of the drug (gastric lavage, kidney dialysis, etc.) and giving antidote drugs.
Skills	B1	Contributing to rescuing cases of poisoning and suicide due to the use of toxic substances through supportive assessment of vital functions (pulmonary, blood and cerebral) and providing emergency assistance by supporting breathing and giving Oxygen, stabilizing blood pressure, adjusting heart rate, and controlling convulsions.
	B2	Acquire the skill of determining the type of laboratory tests necessary based on signs and symptoms
	B3	Determine the necessary medical and therapeutic procedures based on the results of laboratory tests
	B4	The ability to organize and write reports and present results and conclusions clearly
Values	C1	Students must acquire communication skills with the patient and all categories of medical staff
	C2	The ability to advise and educate the patient and communicate with all categories of medical staff
	C3	The student's ability to think accurately through obtaining Information, understanding it, and ways to use it. and analysis
	C4	The student acquires the cognitive abilities to find solutions and ways to prevent problems and make the necessary decisions

11. Teaching and Learning Strategies			
1.	Using data show devices and showing lecture slides	4.	Conducting scientific discussions in class and presenting seminars
2.	View scientific videos on toxicology	5.	Surprise quizzes
3.	Giving homework	6.	Conducting seminars and writing reports

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	An introductory introduction poisoning and its mechanism	Introduction to toxicology	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
2	2	Familiarity with poisoning children And geriatric patients	Poisoning in children and adults	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
3	2	Familiarity with caffeine poisoning Theophylline, antihistamines and decongestants	Medicines that do not require a prescription from a doctor	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
4	2	Familiarity with antibiotic poisoning Steroidal Anti-inflammatory and anti-toxic With vitamins	Medicines that do not require a prescription from a doctor	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
5	2	Familiarity with the toxicity c beta blockers And angiotensin converting enzyme inhibitors	medical description	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
6	2	Familiarity with digoxin toxicity And calcium	medical description	Explaining the lecture using the blackboard and a presentation	Written and oral exams And preparing seminars

		Channel blockers		method Slides	
7	2	Familiarity with the toxicity of antiarrhythmics and the toxicity of inhibitors Blood sugar	medical description	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
8	2	Familiarity with the toxicity of opiod	medical description	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
9	2	Familiarity with the toxicity of antidepressants Tricyclic	medical description	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
10	2	Familiarity with the anticholinergic toxicity of phenothiazines	medical description	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
11	2	Familiarity with Basmaya	medical description	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
12	2	Central nervous system stimulants	medical description	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
13	2	Familiarity with the toxicity of cocaine, opium, phencyclidine, marijuana, and acid Lysergic	Drug abuse medications	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars
14	2	Familiarity with household	Chemicals and environmental	Explaining the lecture	Written and oral exams

		poisons, disinfectants, and camphor	toxins	using the blackboard and a presentation method Slides	And preparing seminars
15	2	Familiarity with plant toxicity And herbal preparations	Plant and plant derived toxins	Explaining the lecture using the blackboard and a presentation method Slides	Written and oral exams And preparing seminars

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	. Gossel TA , Bricker TD principles of clinical toxicology Viccellio P Handbook of medicinal toxicology
Main References (sources)	Viccellio P Handbook of medicinal toxicology
Recommended Books & References (Scientific Journals, Reports …)	International journal of toxicology Accredited scientific journals on Scopus and Calrivate websites
Websites or Electronic References	Iraqi Virtual Library (IVSL)

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Course Description (52)

1. Course Title	**Communication skills**
2. Course Code	**404212**
3. Semester/Year	**2026-2025**
4. Description Preparation Date	**2025**
5. Available Attendance Form	**Attendance at the college**
6. No. of Hours (Total)	**2 hours/week for 15 weeks**
7. No. of Credits (Total)	**2 units**
8. Course Administrator Name	**Khulood Saadoon Salim**
9. E-mail	**kholud.s@albayan.edu.iq**
10. Course Objectives To enable the students to communicate effectively with patients, physicians, and coworkers during the different stages of treatment	

Knowledge	**A1**	The students able to communicate with patients and other health care provider
	A2	The students have the ability to overcome the difficulties and barriers education process of the patients
	A3	Enable the students to dispense the medicines to patients without errors
	A4	Improve the student's ability to communicate with different types of patients su as children, elderly, and handicapped patients.
Skills	**B1**	Improve the communication skills with the patients
	B2	Increase the skills of communication with other healthcare providers
	B3	Training the students on the methods of patient's education
	B4	Increasing the self confidence of the students during communication a consultation of the patients.
Values	**C1**	Developing student's sense of belonging to and loyalty to the homeland
	C2	Raising students to respect human dignity
	C3	Promoting and consolidating professional and ethical values among students
	C4	Enhancing the spirit of cooperation and teamwork among students

11. Teaching and Learning Strategies			
1.	Conducting scientific discussion in class and presenting seminars	4.	Discussing cases study and scenarios
2.	Surprise quizzes	5.	Using data show devices and slides
3.	Writing reports and giving home works	6.	Oral exams

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Patient-centered communication in pharmacy p practice	Patient-centered communication in pharma pa practice	Data show, slides, and blackboard	Discussion, written and oral exam
2	2	Principles and elements communication skills	Principles and elements communication skills	Data show, slides, and blackboard	Discussion, written and oral exam
3	2	Non-verbal communication skills	Non-verbal communication skills	Data show, slides , and blackboard	Discussion, written and oral exam
4	2	Barriers in communication skills	Barriers in communication skills	Data show, slides, a blackboard	Discussion, written and oral exam
5	2	Effective listening and emphatical response communication	Effective listening and emphatical response communication	Data show, slides, and blackboard	Discussion, written and oral exam
6	2	Assertiveness	Assertiveness	Data show, slides, and blackboard	Discussion, written and oral exam
7	2	Interviewing and assessment	Interviewing and assessment	Data show, slides, and blackboard	Discussion, written and oral exam
8	2	Interviewing and assessment	Interviewing and assessment	Data show, slides, and blackboard	Discussion, written and oral exam
9	2	Educating and helping the patients about the dosage regimen	Educating and helping the patients about the dosage regimen	Data show, slides, and blackboard	Discussion, written and oral exam
10	2	Medicinal safety and communication skills	Medicinal safety and communication skills	Data show, slides , and blackboard	Discussion, written and oral exam

11	2	Strategies and methods communication with handicapped patients	Strategies and methods communication with handicapped patients	Data show, slides, and blackboard	Discussion, written and oral exam
12	2	Communication with children and elderly patients	Communication with children and elderly patients	Data show, slides, and blackboard	Discussion, written and oral exam
13	2	Communication with other health care providers	Communication with other health care providers	Data show, slides, and blackboard	Discussion, written and oral exam
14	2	Electronic communication health care	Electronic communication health care	Data show, slides, and blackboard	Discussion, written and oral exam
15	2	Ethical behaviors during communication with patients	Ethical behaviors during communication with patients.	Data show, slides, and blackboard	Discussion, written and oral exam

13. Course Evaluation	
Semester pursuit: 30 marks End of semester exam: 70 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Robert.S.Beardly(ed)** **Communication skills in pharmacy practice**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	**Journals in soft skills and communication skills**
Websites or Electronic References	**Google scholar, PubMed**

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Course Description (41)

1. Course Title	Pharmacology 2
2. Course Code	404101
3. Semester/Year	First semester
4. Description Preparation Date	2026-2025
5. Available Attendance Form	Attendance at the College
6. No. of Hours (Total)	Theoretical: 3 hours per week for 15 weeks Practical: 2 hours per week for 15 weeks
7. No. of Credits (Total)	4 units
8. Course Administrator Name	Asst. Prof. Dr. Atheer S. Alsabah Asst. Lect. Mohammed K. Abbood
9. E-mail	atheer.sabah@albayan.edu.iq mohammed.k@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Helping students acquire and understand pharmacology
	A2	Helping students identify the most important references and sources in pharmaceutical science
	A3	Enabling students to acquire self-learning skills and access the most important sources knowledge and learning to develop their specialized and general abilities
	A4	Linking theoretical trends with practical reality in pharmaceutical sciences
Skills	**B1**	Helping students to possess the skills to conduct scientific experiments
	B2	Helping students to possess the abilities to use modern equipment and technologies related pharmaceutical sciences
	B3	Helping students to possess dialogue and communication skills
	B4	Helping students to possess self-learning skills to acquire new information, skills and knowled
Values	**C1**	Urging students to pursue professional humanitarian work
	C2	Promoting professional and ethical values among students practicing the pharmacy profession
	C3	Supporting students' drug culture
	C4	Enhancing the spirit of cooperation and teamwork among students

11. Teaching and Learning Strategies

1.	Using data show devices and showing lecture slides	**4.**	Conducting scientific discussions in class and presenting seminars
2.	View scientific videos on Pharmacology	**5.**	Surprise quizzes
3.	Giving homework	**6.**	Conducting scientific experiments, performing seminars, and writing reports

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3	Principles of the Nervous Systen	Principles of the Nervous System	Theoretical explanation Discussion panels	Written exam Oral exam
2	3	Sedative –hypnotic Drugs	Sedative –hypnotic Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
3	3	Antidepressants	Antidepressants	Theoretical explanation Discussion panels	Written exam Oral exam
4	3	Antiparkinson Drugs	Antiparkinson Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
5	3	Antipsychotic Drugs	Antipsychotic Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
6	3	Antiepileptic Drugs	Antiepileptic Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
7	3	Anesthetic Drugs	Anesthetic Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
8	3	Opioid Drugs	Opioid Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
9	3	Med-Term Exam	Med-Term Exam	Written exam	Written exam
10	3	Antihypertensive Drugs	Antihypertensive Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
11	3	Antianginal Drugs	Antianginal Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
12	3	Drugs for Heart Failure	Drugs for Heart Failure	Theoretical explanation Discussion panels	Written exam Oral exam
13	3	Antiarrhythmic Drugs	Antiarrhythmic Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
14	3	Antihyperlipidemic Drugs	Antihyperlipidemic Drugs	Theoretical explanation	Written exam

				Discussion panels	Oral exam
15	3	Drugs Affecting Blood	Drugs Affecting Blood	Theoretical explanation Discussion panels	Written exam Oral exam

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Pharmacology; Lippincott Last edition 2019.
Main References (sources)	Pharmacology; Katzung Last edition.
Recommended Books & References (Scientific Journals, Reports …)	Pharmacology; Goodman and Gilman Last edition. and Pharmacology Journals
Websites or Electronic References	Medscape, PubMed, Google scholar research articles

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Course Description (47)

1. Course Title	Pharmacology 3
2. Course Code	404207
3. Semester/Year	Second semester
4. Description Preparation Date	2025-2026
5. Available Attendance Form	Attendance at the College
6. No. of Hours (Total)	Theoretical: 2 hours per week for 15 weeks
7. No. of Credits (Total)	2 units
8. Course Administrator Name	Asst. Prof. Dr. Atheer S. Alsabah
9. E-mail	atheer.sabah@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Helping students acquire and understand pharmacology
	A2	Helping students identify the most important references and sources in pharmaceutical scien
	A3	Enabling students to acquire self-learning skills and access the most important sources knowledge and learning to develop their specialized and general abilities
	A4	Linking theoretical trends with practical reality in pharmaceutical sciences
Skills	**B1**	Helping students to possess the skills to conduct scientific experiments
	B2	Helping students to possess the abilities to use modern equipment and technologies relate pharmaceutical sciences
	B3	Helping students to possess dialogue and communication skills
	B4	Helping students to possess self-learning skills to acquire new information, skills knowledge
Values	**C1**	Urging students to pursue professional humanitarian work
	C2	Promoting professional and ethical values among students practicing the pharmacy professio
	C3	Supporting students' drug culture
	C4	Enhancing the spirit of cooperation and teamwork among students

11. Teaching and Learning Strategies

1.	Using data show devices and showing lecture slides	**4.**	Conducting scientific discussions in class and presenting seminars
2.	View scientific videos on Pharmacology	**5.**	Surprise quizzes
3.	Giving homework	**6.**	Conducting scientific experiments, performing seminars, and writing reports

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Drugs Affecting GIT	Drugs Affecting GIT	Theoretical explanation Discussion panels	Written exam Oral exam
2	2	Drugs Affecting Respiratory System	Drugs Affecting Respiratory System	Theoretical explanation Discussion panels	Written exam Oral exam
3	2	NSAIDs	NSAIDs	Theoretical explanation Discussion panels	Written exam Oral exam
4	2	Drugs Affecting Bone Metabolism	Drugs Affecting Bone Metabolism	Theoretical explanation Discussion panels	Written exam Oral exam
5	2	Drugs For DM	Drugs For DM	Theoretical explanation Discussion panels	Written exam Oral exam
6	2	Hypothalamic-Pituitary Hormones	Hypothalamic-Pituitary Hormones	Theoretical explanation Discussion panels	Written exam Oral exam
7	2	Thyroid Hormones	Thyroid Hormones	Theoretical explanation Discussion panels	Written exam Oral exam
8	2	Adrenal Hormones	Adrenal Hormones	Theoretical explanation Discussion panels	Written exam Oral exam
9	2	Mid-Term Exam	Mid-Term Exam	Written exam	Written exam
10	2	Gonadal Hormones	Gonadal Hormones	Theoretical explanation Discussion panels	Written exam Oral exam
11	2	Anticancer Drugs	Anticancer Drugs	Theoretical explanation Discussion panels	Written exam Oral exam
12	2	Immunopharmacology	Immunopharmacology	Theoretical explanation Discussion panels	Written exam Oral exam
13	2	Drugs for Obesity	Drugs for Obesity	Theoretical explanation Discussion panels	Written exam Oral exam
14	2	Drugs For Anemia	Drugs For Anemia	Theoretical explanation	Written exam

				Discussion panels	Oral exam
15	2	Drugs for Erectile dysfunction	Drugs for Erectile dysfunction	Theoretical explanation Discussion panels	Written exam Oral exam

13. Course Evaluation	
Semester pursuit: 30 marks End of semester exam: 70 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Pharmacology; Lippincott Last edition 2019.
Main References (sources)	Pharmacology; Katzung Last edition.
Recommended Books & References (Scientific Journals, Reports …)	Pharmacology; Goodman and Gilman Last edition. and Pharmacology Journals
Websites or Electronic References	Medscape, PubMed, Google scholar research articles

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Course Description (50)

1. Course Title	General toxicology
2. Course Code	404210
3. Semester/Year	Second semester - 2026/2025
4. Description Preparation Date	2025
5. Available Attendance Form	Attendance at the college
6. No. of Hours (Total)	Theoretical: two hours per week for 15 weeks Practical: two hours per week for 15 weeks
7. No. of Credits (Total)	3 units
8. Course Administrator Name	M. Nibras Jamal Tahseen M.M. Haider Abdel Hassan
9. E-mail	Nibras.j@albayan.edu.iq Hayder.ab@albayan.edu.iq

10. Course Objectives

Studying the principle of exposure to chemicals and various environmental factors, their sources, mechanisms of toxicity, and their danger to humans. It enables students to understand the measures required to protect organisms from suspected toxic hazards.

Knowledge	**A1**	Introducing students to the different types of toxins
	A2	Introducing students to the impact of toxic substances on the environment
	A3	Introducing students to the effect of toxic substances on the organs of the hum body
	A4	Understanding toxins terminology and methods of dealing with toxic substances
Skills	**B1**	Increasing students' skill in identifying toxic substances
	B2	Knowledge of medicinal doses and toxic doses of medications
	B3	Knowing the types of food preservatives and their effect on the human body
	B4	Know the effect of toxic substances on animals, plants and the environment

Values	C1	Introducing students to the importance of environmental balance
	C2	Introducing students to the importance of human life and the necessity of preserving it from the influence of toxic substances
	C3	Introducing students to the effect of toxins on humans and the environment
	C4	Introducing students to how to protect the environment from toxic substances

11. Teaching and Learning Strategies

1.	Using data show devices and showing lecture slides	4.	Conducting scientific discussions in class and presenting seminars
2.	View scientific videos on toxicology	5.	Surprise quizzes
3.	Giving homework	6.	Conducting scientific experiments, performing seminars, and writing reports

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Introduction to toxicology	Introduction: general consideration; host factor, environmental factors of toxic effects	Theoretical explanation Discussion panels	Written exam oral exam
2	2	Cancer and carcinogens	Carcinogenesis	Theoretical explanation Discussion panels	Written exam oral exam
3	2	Genetic mutations and the effect of toxins on the occurrence of genetic mutations	Mutagenesis	Theoretical explanation Discussion panels	Written exam oral exam
4	2	The effect of toxins on the respiratory system	Target organs and systen toxicology; Respiratory syste	Theoretical explanation Discussion panels	Written exam oral exam
5	2	The effect of toxins on the liver	Target organs and systemic toxicology; Liver	Theoretical explanation Discussion panels	Written exam oral exam
6	2	Effect of toxins on the kidneys	Target organs and systemic toxicology; Kidney	Theoretical explanation Discussion panels	Written exam oral exam
7	2	Effect of toxins on the skin	Target organs and systemic	Theoretical	Written exam

			toxicology; Skin	explanation Discussion panels	oral exam
8	2	The effect of toxins on the nervous system	Target organs and systemic toxicology; Nervous system	Theoretical explanation Discussion panels	Written exam oral exam
9	2	The effect of toxins on the blood and circulation Bloody	Target organs and systemic toxicology; cardiovascular system, Blood	Theoretical explanation Discussion panels	Written exam oral exam
10	2	Toxicity of food and drug preservatives	Toxic substances: Food additive and contaminants	Theoretical explanation Discussion panels	Written exam oral exam
11	2	Insecticide toxicity	Toxic substances: Pesticides	Theoretical explanation Discussion panels	Written exam oral exam
12	2	Metal and radiation toxicity	Toxic substances: Metals, Radiation and radioactive materials	Theoretical explanation Discussion panels	Written exam oral exam
13	2	Toxic effect of air pollutants	Environmental toxicology: Air pollution .	Theoretical explanation Discussion panels	Written exam oral exam
14	2	Toxic effect of water pollutants	Environmental toxicology water and soil pollutants, .	Theoretical explanation Discussion panels	Written exam oral exam
15	2	Toxicity effect of gases	Environmental toxicology:,	Theoretical	Written exam

			Gases (Tear gas, Pepper spray), Cyanide(H2S)	explanation Discussion panels	oral exam

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Casarett and Doull, Toxicology, the Basic Science of Poisons; latest edition
Main References (sources)	Viccellio P, (ED.); Handbook of medicine toxicology; lasts edition
Recommended Books & References (Scientific Journals, Reports …)	Pharmacology and toxicology Journals
Websites or Electronic References	Medscape, PubMed, Google scholar research articles

Course Description (19)

1. Course Title	Physiology I
2. Course Code	402104
3. Semester/Year	First semester - 2025/2026
4. Description Preparation Date	2025
5. Available Attendance Form	Attendance at the college
6. No. of Hours (Total)	Theoretical: 3 hours per week for 15 weeks Practical: two hours per week for 15 weeks
7. No. of Credits (Total)	4 Units
8. Course Administrator Name	lecturer Maha ali Salih
9. E-mail	maha.a@albayan.edu.iq

10. Course Objectives

Preparing qualified students capable of practicing the profession of pharmacist in the public and private sectors

- Enabling the student to develop laboratory knowledge and skills through laboratory work using many chemical techniques and equipment
- Enabling students to acquire self-learning skills and familiarize themselves with the most important sources of knowledge and learning in order to develop their specialized and general abilities.
- Harmonizing theoretical trends with practical reality in pharmaceutical sciences
- Enabling students to recognize scientific research tools and work on using them in the academic and practical fields.
- Keeping up with modern scientific developments in pharmaceutical sciences and working to employ them.

Knowledge	**A1**	Enabling students to acquire and understand physiology
	A2	Enabling students to become familiar with the most important references a sources in pharmaceutical sciences

	A3	
	A4	
Skills	B1	Enabling students to possess the skills to work in laboratories and cond scientific experiments
	B2	Enabling students to have the ability to use modern equipment a technologies related to pharmaceutical sciences
	B3	Enabling students to possess the skills of using scientific research tools in the academic and scientific fields
	B4	Enabling students to possess the skills of dialogue, discussion, listening others and accepting their opinions
Values	C1	Developing students' sense of belonging to and loyalty to the homeland
	C2	Raising students to respect human dignity
	C3	Promoting and consolidating professional and ethical values among studer
	C4	Enhancing the spirit of cooperation and teamwork among students

11. Teaching and Learning Strategies

1.	Using data show devices and showing lecture slides	4.	Conducting scientific discussions in class and presenting seminars
2.	View scientific videos on toxicology	5.	Surprise quizzes
3.	Giving homework	6.	Conducting scientific experiments, performing seminars, and writing reports

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	3	**Introduction to cell physiology**	information about the Cell compositio	Theoretical explanation Discussion pane	Written exam oral exam
2	3	**The general and cellular basis of med physiology**	Body cells and Cell membrane, Ion channels	Theoretical explanation Discussion pane	Written exam oral exam
3	3	**Physiology of the nervous system muscles,** Nerve cells; excitation conduction;	**Properties of mixed nerves; g neurotrophins**	Theoretical explanation Discussion pane	Written exam oral exam
4	3	**Nerve fiber types**	**Nerve functions** Graded potenti action potential	Theoretical explanation Discussion panels	Written exam oral exam
5	3	**Muscles:** Skeletal muscle; contraction	**Smooth muscle; cardiac muscle**	Theoretical explanation Discussion pane	Written exam oral exam
6	3	**Synaptic transmission:** Refle Cutaneous, deep and visc sensations	**Alert behavior, sleep and electrical activity of the brain; control of posture and movement**	Theoretical explanation Discussion pane	Written exam oral exam
7	3	**Higher function of the nervous syst** central regulation of visceral function	**The autonomic nervous system**	Theoretical explanation Discussion pane	Written exam oral exam
8	3	**Respiration :** Respiratory zones; Mechanics of respiration; air volumes; respira	**Surfactants; differences in ventilation blood flow in deferent parts of the lung**	Theoretical explanation	Written exam oral exam

		muscles; compliance of the lungs and c wall		Discussion pane	
9	3	**Respiration:** Dead space and uneven ventilation; Pulmonary circulation: Pressure, volume and flow	Gas transport between the lungs and tissue.	Theoretical explanation Discussion pane	Written exam oral exam
10	3	**Regulation of respiration:** Neural control of breathing; Respiratory centers; Regulation respiratory activity: Chemical factors; chemical factors.	**Respiratory adjustment** in health and disease; Effect of exercise; Hypoxia; Emphysema; Asthma	Theoretical explanation Discussion pane	Written exam oral exam
11	3	**Renal physiology**: Introduct innervations of the renal vessels; r clearance; renal blood flow**.**	**Glomerular filtration rate (GFR)**: Measurements; factor affecting GFR	Theoretical explanation Discussion pane	Written exam oral exam
12	3	**Filtration fraction**: Reabsorption of Na^+, Cl^- and glucose. Tubuloglomerular feedback and glomerulotubular balance; water excretion in: proximal tubules; loop of henle; d tubules; collecting ducts.	**The counter current mechanism**; role of urea; water diuresis and osmotic dieresis**.**	Theoretical explanation Discussion pane	Written exam oral exam
13	3	**Acidification of the urine:** H^+ secret reaction with buffers; ammonia secret factors affecting acid secretion.	**Bicarbonate execration**; regulation of K^+ and Cl^- excretion; uremia; acidc micturition	Theoretical explanation Discussion pane	Written exam oral exam
14	3	**Cardiovascular:** origin and spread of cardiac excitation.	**The electrocardiogram**; cardiac arrhythmias.	Theoretical explanation Discussion pane	Written exam oral exam
15	3	**Electrographic** findings in cardiac diseases; mechanical events of the cardiac cycle	**Cardiac output**	Theoretical explanation Discussion pane	Written exam oral exam

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Vender human physiology- the mechanism of body function – latest edition
Main References (sources)	Essential of human physiology for pharmacy, 2nd editing
Recommended Books & References (Scientific Journals, Reports …)	Medical journals of physiology and pathophysiology
Websites or Electronic References	Google scholar and PubMed

جامعة البيان

Course Description (26)

1. Course Title	Physiology II
2. Course Code	402211
3. Semester/Year	Second semester - 2025/2026
4. Description Preparation Date	2025
5. Available Attendance Form	Attendance at the college
6. No. of Hours (Total)	Theoretical: 3 hours per week for 15 weeks Practical: two hours per week for 15 weeks
7. No. of Credits (Total)	4 units
	8. Course Administrator Name lecturer Maha Ali Saleh
9. E-mail	Maha.a@albayan.edu.iq

10. Course Objectives

Preparing qualified students capable of practicing the profession of pharmacist in the public and private sectors

- Enabling the student to develop laboratory knowledge and skills through laboratory work using many chemical techniques and equipment
- Enabling students to acquire self-learning skills and familiarize themselves with the most important sources of knowledge and learning in order to develop their specialized and general abilities.
- Harmonizing theoretical trends with practical reality in pharmaceutical sciences
- Enabling students to recognize scientific research tools and work on using them in the academic and practical fields.
- Keeping up with modern scientific developments in pharmaceutical sciences and working to employ them.

Knowledge	A1	Enabling students to acquire and understand physiology
	A2	Enabling students to become familiar with the most important references a sources in pharmaceutical sciences
	A3	
	A4	
Skills	B1	Enabling students to possess the skills to work in laboratories and cond scientific experiments
	B2	Enabling students to have the ability to use modern equipment a technologies related to pharmaceutical sciences
	B3	Enabling students to possess the skills of using scientific research tools in the academic and scientific fields
	B4	Enabling students to possess the skills of dialogue, discussion, listening others and accepting their opinions
Values	C1	Developing students' sense of belonging to and loyalty to the homeland
	C2	Raising students to respect human dignity
	C3	Promoting and consolidating professional and ethical values among studer
	C4	Enhancing the spirit of cooperation and teamwork among students

11. Teaching and Learning Strategies

1.	Using data show devices and showing lecture slides	4.	Conducting scientific discussions in class and presenting seminars
2.	View scientific videos on toxicology	5.	Surprise quizzes
3.	Giving homework	6.	Conducting scientific experiments, performing seminars, and writing reports

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	3	**Cardiovascular regulatory mechanisms:** Local regulatory mechanisms; systemic regulation by the nervous system; systemic regulation by hormones.	**Coronary circulation; Hypertension; Heart failure; Angina pectoris.**	Theoretical explanation Discussion panels	Written exam oral exam
2	3	**Digestive system** Gastrointestinal function: Digestion and absorption of carbohydrates; proteins; lipids.	**Absorption of water and electrolytes**; vitamins and minerals.	Theoretical explanation Discussion panels	Written exam oral exam
3	3	**Regulation of gastrointestinal function:** Introduction; gastrointestinal hormones.	**Mouth and esophagus.**	Theoretical explanation Discussion panels	Written exam oral exam
4	3	**Stomach; exocrine portion of pancreas.**	liver and biliary system; small intestine; colon.	Theoretical explanation Discussion panels	Written exam oral exam
5	3	**Circulatory body fluid:** Introduction; blood. **Bone marrow.**	**Circulatory body fluid:** Introduction; blood. **Bone marrow.**	Theoretical explanation Discussion panels	Written exam oral exam
6	3	**White blood cells.**	**Immunity**	Theoretical explanation Discussion panels	Written exam oral exam
7	3	**Platelets; red blood cells; anemia; polycythemia.**	**Blood group and Rh factor.**	Theoretical explanation Discussion panels	Written exam oral exam

8	3	**Hemostasis:** The clotting mechanism	**Blood coagulation**	Theoretical explanation Discussion panels	Written exam oral exam
9	3	**Anti clotting mechanism**; the plasma; the lymph.	**Abnormalities of hemostasis.**	Theoretical explanation Discussion panels	Written exam oral exam
10	3	**Endocrinology:** Introduction; energy balance.	**Metabolism and nutrition.**	Theoretical explanation Discussion panels	Written exam oral exam
11	3	**The pituitary gland, The thyroid gland**	Endocrine function	Theoretical explanation Discussion panels	Written exam oral exam
12	3	**Renal physiology**: Introduction; innervations of the renal vessels; renal clearance; renal blood flow**.**	**Glomerular filtration rate (GFR)**: Measurements; factor affecting GFR	Theoretical explanation Discussion panels	Written exam oral exam
13	3	**Filtration fraction**: Reabsorption of Na^+, Cl^- and glucose. Tubuloglomerular feedback and glomerulotubular balance; water excretion in: proximal tubules; loop of henle; distal tubules; collecting ducts.	**The counter current mechanism**; role of urea; water diuresis and osmotic dieresis**.**	Theoretical explanation Discussion panels	Written exam oral exam
14	3	The gonads	Development and function reproductive system	Theoretical explanation Discussion panels	Written exam oral exam
15	3	The adrenal medulla and adrenal cortex	Adrenal function	Theoretical explanation Discussion panels	Written exam oral exam

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Vender human physiology- the mechanism of body function – latest edition
Main References (sources)	Essential of human physiology for pharmacy, 2nd editing
Recommended Books & References (Scientific Journals, Reports …)	Medical journals of physiology and pathophysiology
Websites or Electronic References	Google scholar and PubMed

جامعة البيان

Course Description (4)

1. Course Title	**Medical Terminology / first semester**
2. Course Code	**401104**
3. Semester/Year	**2026-2025**
4. Description Preparation Date	**2025**
5. Available Attendance Form	**Official working hours**
6. No. of Hours (Total)	**1 hour per week (for 15 weeks during the first semester)**
7. No. of Credits (Total)	**One Unit**
8. Course Administrator Name	**Lecturer :Huda Jasim Noori**
9. E-mail	**Huda.j@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**A1- Preparing the student and making him familiar with all kinds of medi terms used in his medical field**
	A2	**A2- Study of different types of medicines used in the treatment of differ diseases**
	A3	**A3- Study of drug kinetics and mechanism of action of the drug**
	A4	**A4- Study of side effects and drug interactions of different treatments**
Skills	**B1**	**1- Enabling students to possess the skills of using scientific research tools the academic and scientific field**
	B2	**2- Enable students to read and interpret all medical and pharmaceuti terms and symbols**
	B3	**3- Enabling students to possess the skills of dialogue, discussion, listening others and accepting their opinions.**
	B4	**4- Enabling students to possess self-learning skills to acquire new informati skills and knowledge.**
Values	**C1**	**1 -Develop students' sense of belonging to the homeland and loyalty to it.**
	C2	**2 - Educating students to respect human dignity.**
	C3	**3- Educating students on professional humanitarian work.**
	C4	**4- Promoting and consolidating professional and ethical values amo students to practice the profession of pharmacist**

جامعة البيان

11. Teaching and Learning Strategies

1.	**1. Use the smart board**
2.	**2. Use slides**
3.	**3. Demand periodic reports**

جامعة البيان

12. Course Structure					
method Evaluation	method education	Unit / Subject Name	Required Learning Outcomes	Hours	week
Oral or written exam reports	Smart Board Slides display	Principles of medical terminology	Rooted study Simple word and common suffixes	1	1
=	=	Principles of medical terminology	Study of word prefixes related to pharmaceutical sciences	1	2
=	=	Principles of medical terminology	Study of basic anatomy and abnormal conditions	2	3
=	=	Body system terminology	Member Study Genital and urological	1	4
=	=	Body system terminology	Study of the digestive system	1	5

=	=	**Body system terminology**	**Cardiovascular study**	**1**	**6**
=	=	**Body system terminology**	**Study growth, development and body**	**1**	**7**
=	=		**Midterm Exam**		**8**
=	=	**Body system terminology**	**Study of gynecology, pregnancy and child birth**	**1**	**9**
=	=	**Body system terminology**	**Eye study and respiratory study**	**1**	**10**
=	=	**Body system terminology**	**Study of the nervous system**	**2**	**11**
=	=	**Body system terminology**	**Blood study And its diseases and the study of the immune system**	**1**	**12**

=	=		**Study of filters and statistics of symptoms, diagnosis, treatment and communicatio n**	**2**	**13**
			End of Semester Exam		

جامعة البيان

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 and written exams, reports .... etc

14. Learning & Teaching Resources

Required textbooks (curricular if any)	**Textbooks: A short course in medical terminology, 1st Ed.; Lippincott Williams and Wilkins;2008**
Main References (sources)	**1. Textbooks: A short course in medical terminology, 1st Ed.; Lippincott Williams and Wilkins;2008** **2. PC Networking for System Programmers**
Recommended Books & References (Scientific Journals, Reports …)	**Sources related to new medical terminology from the Internet or books The other modern**
Websites or Electronic References	**Internet**

جامعة البيان

Course Description (36)

1. Course Title	**Pharmacology 1**
2. Course Code	403208
3. Semester/Year	**Second semester-2026-2025**
4. Description Preparation Date	**2025**
5. Available Attendance Form	**Attendance at the college**
6. No. of Hours (Total)	**3 hours/week for 15 weeks**
7. No. of Credits (Total)	**3 units**
8. Course Administrator Name	**Khulood Saadoon Salim**
9. E-mail	**kholud.s@albayan.edu.iq**

10. Course Objectives: Studying the principles of pharmacology and preparing the students to be capable of classifying the available drugs according to systems disorders

Knowledge	**A1**	Enable the students to understand the basic of pharmacology science
	A2	Enable the students to know the drugs groups in general
	A3	Enabling the students to know the clinical uses and the main side effects of drugs
	A4	Enabling the students to search and write reports about the drug groups
Skills	**B1**	Encouraging the students to posses the skills of using scientific researches in tools scientific and academic fields.
	B2	Training the students to posses the skills of dialogue, discussion, listening to others and accepting their opinions.
	B3	Enabling the students to have the ability to work in pharmacy
	B4	Enabling the students to have self-skills and acquiring information and knowledge.
Values	**C1**	Developing student's sense of belonging to and loyalty to the homeland
	C2	Raising students to respect human dignity
	C3	Promoting and consolidating professional and ethical values among students

	C4	Enhancing the spirit of cooperation and teamwork among students.

11. Teaching and Learning Strategies

1.	**Conducting scientific discussion in class and presenting seminars**	**4.**	**Oral exams during the lecture**
2.	**Surprise quizzes**	**5.**	**Using data show devices and slides**
3.	**Writing reports and giving home works**	**6.**	**View scientific videos on pharmacology**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3	Pharmacokinetics of drugs	Studying the absorption, distribution, metabolism and excretions of drugs in general	Data show, slides, and blackboard	Discussion, written and oral exam
2	3	Pharmacodynamics of drugs	Studying the mechanism of action of drugs and their therapeutic and side effects of drugs.	Data show, slides, and blackboard	Discussion, written and oral exam
3	3	The autonomic nervous system	Studying the physiology and anatomy of autonomic nervous system, classification and the receptors	Data show, slides , and blackboard	Discussion, written and oral exam
4	3	The parasympathetic nervous system	Studying the drugs acting as agonist on parasympathetic system	Data show, slides, and blackboard	Discussion, written and oral exam
5	3	Anticholinergic drugs	Studying the drugs acting as antagonists on parasympathetic receptors with their clinical uses and side effects	Data show, slides, and blackboard	Discussion, written and oral exam
6	3	Sympathetic nervous	Studying the drugs acting as	Data show, slides,	Discussion, written

		system	agonists on adrenergic receptors, their classification uses , and side effects	and blackboard	and oral exam
7	3	Antiadrenergic drugs	Studying the drugs that block adrenergic receptors, their classification, uses , and side effects.	Data show, slides, and blackboard	Discussion, written and oral exam
8		Mid term exam	Mid term exam	Mid term exam	Mid term exam
9	3	Introduction to antimicrobial drugs	Studying the main principles antibiotics, properties, classification, and resistance mechanism	Data show, slides, and blackboard	Discussion, written and oral exam
10		Classification of antibiotics	Understanding the classification of antibiotics and the members of each class, the effect on bacteria , and the uses and side effects	Data show, slides, and blackboard	Discussion, written and oral exam
11		Urinary tract antiseptics	Studying the main drugs used in urinary tract infections with their side effect	Data show, slides , and blackboard	Discussion, written and oral exam
12		Antimycobacterial	Drugs used for treatment of tuberculosis	Data show, slides, and blackboard	Discussion, written and oral exam
13		Antifungal drugs	Drugs used for treatment of systemic and local mycosis	Data show, slides, and blackboard	Discussion, written and oral exam
14		Antiparasitic	Drugs used for treatment of diseases caused by different parasites	Data show, slides, and blackboard	Discussion, written and oral exam

15		Anthelmintics	Drugs used for treatment of diseases caused by helminthics	Data show, slides, and blackboard	Discussion, written and oral exam

13. Course Evaluation
Semester pursuit: 30 marks End of semester exam: 70 marks

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Pharmacology, Lippincott last edition 2019
Main References (sources)	Basic and clinical pharmacology, Katzung
Recommended Books & References (Scientific Journals, Reports …)	Journals of pharmacology
Websites or Electronic References	Google scholar, PubMed, you tubes, medical journals

جامعة البيان

Course Description (13)

1. Course Title	**Histology**
2. Course Code	**401212**
3. Semester/Year	**Second/ 2023-2024**
4. Description Preparation	**Date 20-9-2024**
5. Available Attendance Form	**Attendance at the college**
6. No. of Hours (Total)	**Theoretical 2 hours per week** **Practical 2 hours per week**
7. No. of Credits (Total)	**3 Units**
8. Course Administrator Name	**Haider Abdul Hasan Jalil**
9. E-mail	**hayder.ab@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Enable the students to understanding and studying the Histology of the body
	A2	Statement of knowledge of Histology
	A3	
	A4	
Skills	**B1**	Conducting oral and written evaluation
	B2	Scientific reports
	B3	
	B4	
Values	**C1**	Surprising, inferential questions during the discussion
	C2	Conducting daily examinations for students
	C3	
	C4	

11. Teaching and Learning Strategies

1.	**Using the smart board**	**4.**	
2.	**Display slides related to human biology on the data show and**	**5.**	

	study them under a microscope		
3.	**Using the scientific references**	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Integumantery System	Integumantery System	Data show, slides, and blackboard	Monthly written exam
2	2	Circulatory System	Heart	Data show, slides, and blackboard	Oral exam
3	2	Circulatory System	blood circulation	Data show, slides, and blackboard	Oral exam
4	2	Lymphatic System	Lymph nodes	Data show, slides, and blackboard	Oral exam
5	2	Respiratory System	Lungs, alveoli	Data show, slides, and blackboard	Oral exam
6	2	Digestive System	Oral cavity	Data show, slides, and blackboard	Oral exam
7	2	Digestive System	Stomach, small and Large intestines	Data show, slides, and blackboard	Oral exam
8	2	Digestive System	Liver ,Gall bladder	Data show, slides, and blackboard	Monthly written exam
9	2	Digestive System	Pancreas	Data show, slides, and blackboard	Oral exam
10	2	Urinary system	Kidneys	Data show, slides, and blackboard	Daily written exam

11	2	Urinary system	Nephron, Glomeruli , Bowmans capsule	Data show, slides, and blackboard	Oral exam
12	2	Reproductive System	Male reproductive System	Data show, slides, and blackboard	Daily written exam
13	2	Reproductive System	female reproductive System	Data show, slides, and blackboard	Daily written exam
14	2	Accessory glands	Accessory glands	Data show, slides, and blackboard	Oral exam
15	2	Final exam	Final exam	Data show, slides, and blackboard	Monthly written exam

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Atlas of–Histology with function and clinical correlations. (Dongmei Cui),2011** **GENERAL HISTOLOGY E.F.Barinov, O.N.Sulayeva, ,B.P.Tereschuk L.I.Khlamanova, E.V.Chereshneva,K.I.Gatina .I.A.Prylutskay 2011a**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (34)

1. Course Title	Pathophysiology
2. Course Code	403105
3. Semester/Year	Third year students / First semester – 2023/2024
4. Description Preparation Date	2023 - 2024
5. Available Attendance Form	Attendance at college
6. No. of Hours (Total)	Theoretical: 3 hours per week for 15 weeks Practical: 2 hours per week for 15 weeks
7. No. of Credits (Total)	4 Units
8. Course Administrator Name	Lect. Kholud Saadon , Assist. Lect. Mohammed I Abbood
9. E-mail	Mohammed.k@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Identify the mechanism of disease occurrence from the physiological perspective the human body
	A2	Identify the pathological effects during the occurrence of the disease and af recovery from it
	A3	Identify the clinical symptoms of the disease
	A4	Identify the mechanism of disease occurrence from the physiological perspective the human body
Skills	**B1**	Giving a comprehensive idea about the pathology of diseases that affect varic body systems.
	B2	Clarifying the pathology of the disease and the pathological changes accompany the disease.
	B3	Giving an anatomical description of all the internal and external organs of human body and their relationship to each other.
	B4	Giving a comprehensive idea about the pathology of diseases that affect varic body systems.
Values	**C1**	Developing students' sense of belonging to and loyalty to the homeland.
	C2	Raising students to respect human dignity and professional humanitarian work.
	C3	Promoting and consolidating professional and ethical values among students practicing the profession of pharmacist

	C4	Raising students in a culture of integrity and fighting corruption in all its forms

11. Teaching and Learning Strategies

1.	Lectures	4.	Educational laboratories
2.	Discussing cases	5.	
3.	Seminars	6.	

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3 theory 2 practical	Introduction	Introduction	ppt	theoretical exam, Class discussions
2	3 theory 2 practical	Cell injury and tissue response; Degeneration; Necrosis.	Cell injury and tissue response; Degeneration; Necrosis.	ppt	theoretical exam, Class discussions
3	3 theory 2 practical	Inflammation and chronic inflammatic	Inflammation and chronic inflammation)	ppt	theoretical exam, Class discussions
4	3 theory 2 practical	Syndrome of inappropriate secretion o ADH; Diabetes insipidus; Metabolic acidosis and alkalosis; Respiratory acidosis and alkalosis	Syndrome of inappropriate secretion of ADH; Diabetes insipidus; Metabolic acidosis and alkalosis; Respiratory acidosis and alkalosis	ppt	theoretical exam, Class discussions
5	3 theory 2 practical	MI; Rheumatic heart disease; Heart failure.	MI; Rheumatic heart disease; Heart failure	ppt	theoretical exam, Class discussions
6	3 theory 2 practical	Emphysema and bronchiectasis; Cysti fibrosis; Pulmonary embolism; Pulmonary hypertension.	Emphysema and bronchiectasis; Cystic fibrosis; Pulmonary embolism; Pulmonary hypertension.	ppt	theoretical exam, Class discussions
7	3 theory 2 practical	Hypertensive glomerular disease; Pyelonephritis; Drug related nephropathies; Acute renal failure; Chronic renal failure.	Hypertensive glomerular disease; Pyelonephritis; Drug related nephropathies Acute renal failure; Chronic renal failure.	ppt	theoretical exam, Class discussions
8	3 theory 2 practical	Irritable bowel syndrome. Crohn's disease; Diarrhea; Celiac disease.	Irritable bowel syndrome. Crohn's disease; Diarrhea; Celiac disease.	ppt	theoretical exam, Class discussions
9	3 theory 2 practical	Graves diseases.	Graves diseases.	ppt	theoretical exam, Class discussions
10	3 theory 2 practical	Thyrotoxicosis	Thyrotoxicosis	ppt	theoretical exam, Class discussions
11	3 theory 2 practical	Diabetes mellitus and metabolic syndrome.	Diabetes mellitus and metabolic syndrome.	ppt	theoretical exam, Class discussions

12	3 theory 2 practical	Metabolic and rheumatic disorders of skeletal system: Osteoporosis; Osteomalacia and rickets.	Metabolic and rheumatic disorders of skeletal system: Osteoporosis; Osteomalacia and rickets.	ppt	theoretical exam, Class discussions
13	3 theory 2 practical	Ankylosing spodylitis; Gout; Osteoarthritis syndrome.	Ankylosing spodylitis; Gout; Osteoarthritis syndrome.	ppt	theoretical exam, Class discussions
14	3 theory 2 practical	Alteration in immune response: Hypersensitivity disorders	Alteration in immune response: Hypersensitivity disorders	ppt	theoretical exam, Class discussions
15	3 theory 2 practical	Immunodeficiency disorders.	Immunodeficiency disorders.	ppt	theoretical exam, Class discussions

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**- Essential in Pathophysiology by: Carol Mattson Porth 2nd Ed. Volume 1and Volume 2**
Main References (sources)	**Pathophysiology Conale.**
Recommended Books & References (Scientific Journals, Reports …)	1) Articles. 2) Internet
Websites or Electronic References	

جامعة البيان

Course Description (1)

1. Course Title	**Medical Physics**
2. Course Code	**401210**
3. Semester/Year	**Second semester**
4. Description Preparation Date	**28/3/2023**
5. Available Attendance Form	**Presence only**
6. No. of Hours (Total)	**3**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Assistant lecturer hassanien M alwash**
9. E-mail	hassanien@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	ow the importance of physics in medicine and its sciences
	A2	Knowledge of anatomical applications
	A3	How organs work
	A4	Get an overview of the nature of anatomical work
Skills	**B1**	Read medical tests and reports
	B2	
	B3	
	B4	
Values	**C1**	
	C2	
	C3	
	C4	

11. Teaching and Learning Strategies

1.		**4.**	
2.		**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	: Method of physics and standards; thermodynamics system and system properties; conservation of energy principle; application of thermodynamics; Zeroth law.	General concepts	Aperance only	
2	2	; temperature and temperature scales (Celsius, Fahrenheit, Kelvin); equation of state; ideal and real gas; general law of gas clauses equation and Vander Waa equation; equilibrium and types equilibrium; compressibility fac coefficient of volume expansi elastic coefficient (bulk modulus).	Pressure	Aperance only	
3	2	; work and mechanical forms of work; power; the 1st law of thermodynamics; Boyles Charles law; practice exercises.	Heat and energy	Aperance only	
4	2	; reversible and irreversible process; entropy and enthalpy; inter energy; heat capacity and adiab process; the relation betw	The 2nd law of thermodynamics	Aperance only	

		pressure, volume, and temperature adiabatic process.			
5	2	Kinetic theory of a gas; electromagnetic waves; Maxwell equations; physical optic	Fundamental of physics:	Aperance only	
6	2	law; planks law; Stefan-Boltz man law; Wien s law; Black body and Albedo; H transfer (radiati convection, conduction).	Radiation: Kirshoffs	Aperance only	
7	2	absorption of X-Ray; U.V and IR effects; medical and biolog effects of radiation; radiotherapy.	Production of X-Ray and X-R spectra;	Aperance only	
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect)End of semester exam: 60 marks....	
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 (44)

1. Course Title	Biopharmaceuticals and pharmaceuticals
2. Course Code	404104
3. Semester/Year	First semester / 2024-2025
4. Description Preparation Date	29/9/2024
5. Available Attendance Form	Attendance at college
6. No. of Hours (Total)	4 hours (2 theoretical + 2 practical)
7. No. of Credits (Total)	3
8. Course Administrator Name	A. lecturer Ahmed hamed salman + A. lecturer Maha Hikmat Philip
9. E-mail	Ahmed.s@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Identify the physical properties of drugs and how to evaluate them laboratory
	A2	Identify the mechanism of drug absorption within the body and the factors affecting it
	A3	The difference between the single-compartment and multi-compartment models.
	A4	Calculating the bioavailability of drugs
Skills	**B1**	Drawing the standard curve for drugs
	B2	Laboratory evaluation of drugs
	B3	Study of aspirin degradation in the laboratory
	B4	Calculating the shelf life of aspirin
Values	**C1**	Conducting oral discussions with small groups of students b
	C2	Doing presentations
	C3	Reports and homework

11. Teaching and Learning Strategies

1.	Explaining and presenting the theoretical material using a visual projector.	**4.**	Discussing with students during theoretical and practical lectures to convey the idea of the lecture or laboratory in a smooth manner that facilitates the student's learning and understanding of the scientific material.
2.	Conducting practical experiments to apply the theoretical material practically.		
3.	Writing scientific reports related to practical experiments and conducting the necessary calculations for the experiments by students.		

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2	Introduction to biopharmaceuticals	Definition of biopharmaceutics and type patterns: one-compartment and t compartment	1.Explaining and presenting the theoretical material using a visual project	Discussions and pract evaluation of results
2	2	Biopharmaceutical standards	Drug absorption and absorption mechanism	2. Use the whiteboard to illustrate mathematical operations	Discussions and pract evaluation of results
3	2	Types of absorption mechanism	Determining factors on the absorp mechanism	3. Conduct practical experiments to apply the theoretical material in a practical way	Discussions and pract evaluation of results
4	2	Physical factors and Chemicals affec Dissolution speed	Characteristics of the drug and additives	4. Writing practical reports related practical experiments	Discussions and pract evaluation of results
5	2	Complementary physical factors chemical	The type of additives for the drug dose and type of drug doses	5. Discussing with students during lectures to convey the lecture idea smoothly	Semester exam
6	2	One cubicle	Single-chamber model after oral doses glaucoma routes		Discussions and pract evaluation of results
7	2	Multi-compartment	Multi-compartment model Two-compartn model after oral doses and intravenous dos		Discussions and pract evaluation of results
8	2	Drug absorption kinetics	Zero-order and first-order absorp mechanism		Discussions and pract evaluation of results
9	2	Repeated drug doses	The time required to reach stability		Discussions and pract evaluation of results
10	2	Repeated drug doses	Medicine collection		Discussions and pract evaluation of results
11	2	Linear kinematics	Causes of linear motion		Discussions and pract evaluation of results
12	2	Bioavailability and valence	Types of bioavailability		Discussions and pract evaluation of results
13	2	Elimination of drugs from vital systems	Elimination via kidney and liver		Discussions and pract evaluation of results
14	2	Binding of the drug to protein	Kinetics of drug binding to protein		Discussions and pract evaluation of results

15	2	Dose regulation in case of renal failure	Regulation of drug dosage		Discussions and pract evaluation of results
					final exam

13. Course Evaluation

Semesterpursuit:40marks(20theoreticalaspect+20practicalaspect)Endofsemesterexam: 60marks....

14. Learning & Teaching Resources

Required textbooks (curricular if any)	Shargel L., Yu AB., (Eds). Applied Biopharmaceutics and Pharmacokinetics
Main References (sources)	Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 3ed Michael E. Aulton (Author). Churchill, Livingstone- Elsevier
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	YouTube / Google scholar / USP / BP

جامعة البيان

Course Description (67)

1. Course Title	Pharmaceutical biotechnology
2. Course Code	405214
3. Semester/Year	Second semester / 2024-2025
4. Description Preparation Date	29/9/2024
5. Available Attendance Form	Attendance at college
6. No. of Hours (Total)	One hour (Theoretical)
7. No. of Credits (Total)	1
8. Course Administrator Name	Asst.Prof Dr Mustafa Raad Abdel Baqi
9. E-mail	Mustafa.raad@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Knowledge about biotechnology products such as proteins
	A2	Obtain information on the basic principles of formulation and preparation of biotechnology products medicines Biopharmaceutical
	A3	To be able to formulate therapeutic proteins
	A4	Knowledge about freeze-drying technology and excipients used in protein formulation is provided by th Technology
Skills	**B1**	Solve problems during the preparation of pharmaceutical biotechnology products
	B2	Make presentations on specific topics
	B3	Writing scientific reports
	B4	Register in small groups
Values	**C1**	Discussions in small groups
	C2	presentations
	C3	small projects

11. Teaching and Learning Strategies

1. Explaining and presenting the theoretical material using a visual projector.

2. Discussing with students during theoretical and practical lectures to convey the idea of the lecture or laboratory in a smooth manner that facilitates the student's learning and understanding of the scientific material.

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	1	Biotechnology, molecular biotechnology pharmaceutical biotechnology, biotechnology, pharmaceutical biotechnology products	Introduction to biotechnology	Explaining and presenting theoretical material using visual projector.	1.Conducting semester and final exams
3	3	Microbial Considerations Microbial Considerations Sterilization- Removal of Pyrogens Viral Contamination	Formulation of biotechnological produ (according to biopharmaceut considerations)	Explaining and presenting theoretical material using a vis projector.	2. Conducting short daily exams a each lecture.
7	3	Ingredients found in preparations Intravenous from genetically modified products 1 .Solubility improvers 2. Anti-absorption and anti-adsorption	Excipients for parenteral products solubility enhancers - and anti-adsorpt agents	Explaining and presenting theoretical material using a vis projector.	
8	1	3 .Material components Buffer, 4. Preservatives 5. And anti-oxida 6 .Osmotic materials - Freeze-drying of proteins - The importance of freeze-dryin Typical excipients in the formulation of proteins prepared by the freeze-dried met	- Insulating materials - Preservatives - Ripe materials	Explaining and presenting theoretical material using a vis projector.	
					Midterm exam
9	1	Intravenous methods of administration of proteins, Oral administration of proteins	Protein delivery and methods administration	Explaining and presenting theoretical material using a vis projector.	
10	1	Protein delivery: alternative methods protein administration	The potential pros and cons of different drug administration methods are differe - Approaches used to enhance - bioavailability of proteins within the body	Explaining and presenting theoretical material using a vis projector.	
11	1	Pharmacokinetics and pharmacodynamics of Peptide and protein drugs	-Pharmacokinetics of protein therapeu -Absorption of protein treatments and strategies To overcome the obstacles associated w the delivery of proteins via…	Explaining and presenting theoretical material using a vis projector.	

			Oral, for intravenous versus subcutane proteins		
12	1	Distribution of therapeutic prot within the body	-Distribution mechanisms and circulati volumes for pharmacokinetics of therapeutic proteins - Distribution by administration mediated by receptors	Explaining and presenting theoretical material using a vi projector.	
13	1	Proteolysis - Proton treatments rele from the body	Protein metabolic processes through digestive system	Explaining and presenting theoretical material using a vi projector.	
14	1	Renal metabolism of protein And secretion processes	Glomerular filtration, tubular absorp and post-glomerular filtration absorptio	Explaining and presenting theoretical material using a vi projector.	
15	1	Via rendezvous receptors - Via di shuttle - Via receptors	Protein metabolism in the liver	Explaining and presenting theoretical material using a vi projector.	
					Final exam

جامعة البيان

1. Course Evaluation	
Semesterpursuit:40marks(20theoreticalaspect+20practicalaspect) Endofsemesterexam:60marks...	
2. Learning & Teaching Resources	
Required textbooks (curricular if any)	Pharmaceutical biotechnology by J.A. Crommelin, Robert D. Syinder.
Main References (sources)	Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 3ed Michael E. Aulton (Author). Churchill, Livingstone- Elsevier
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	YouTube / Google scholar

جامعة البيان

Course Description (18)

1. Course Title	Physical pharmacy I
2. Course Code	402103
3. Semester/Year	First semester- 2024/2025
4. Description Preparation Date	2024
5. Available Attendance Form	Attendance at the college
6. No. of Hours (Total)	5 hours (3 theoretical + 2 practical)
7. No. of Credits (Total)	4 credits
8. Course Administrator Name	Asst. Prof. Dr Hassanien Sagban Taghi Lecturer Zahraa Mustafa Lecturer Gailany Ismail
9. E-mail	h.sagban@albayan.edu.iq zahraa.mu@albayan.edu.iq

10. Course Objectives :

In the theoretical part: understanding and applying quantitative and theoretical principles of different states of matter and ways to benefit from them in the fields of pharmacy. It also helps the pharmacist calculate the solubility, compatibility and biological activity of drugs. As a result of this knowledge, it will help in the development of new drugs and formulations as well as in improving various drug delivery methods.

Knowledge	**A1**	A comprehensive overview of states of matter.
	A2	A comprehensive overview of thermodynamics
	A3	A comprehensive overview of electrolyte and non-electrolyte solutions.
	A4	A comprehensive overview of ionic balance and buffers.
Skills	**B1**	Solve mathematical problems related to the course.
	B2	Presentation of a topic on a specific subject.
	B3	Writing scientific reports.
	B4	Small group tasks

Values	C1	Educating students on professional humanitarian work and promoting and consolidating professional and ethical values among students to practice the pharmacist profession.
	C2	Raising students in the culture of integrity and fighting corruption in all its forms
	C3	Training students to respect the rights of the beneficiaries of their profession, their culture, religion, gender, race, and training the students to respect the freedom of thought, expression and creativity of others
	C4	Developing students' sense of responsibility during the study period and during work and enhancing the spirit cooperation and teamwork upon request.

11. Teaching and Learning Strategies

1.	Using data show devices and showing lecture slides	4.	Surprise quizzes
2.	Giving homework	5.	Conducting scientific experiments, and writing reports
3.	Conducting scientific discussions in class and presenting seminars	6.	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3	States of matter	binding forces between molecules, gases, liquids, solid and crystalline matters.	Using the smart board and solving mathematical problems	discussion
2	3	States of matter	phase equilibria and phase rule	Using the smart board and solving mathematical problems	Short quiz
3	3	States of matter	thermal analysis	Using the smart board and solving mathematical problems	discussion
4	3	Thermodynamics	First law	Using the smart board and solving mathematical problems	discussion
5	3	Thermodynamics	Second law	Using the smart board and solving mathematical problems	discussion
6	3	Thermodynamics	Third law, free energy function and applications	Using the smart board and solving mathematical problems	discussion
7	3	Solutions of non-electrolytes	Solutions of non-electrolytes, properties, ideal and real colligative properties	Using the smart board and solving mathematical problems	discussion
8	3	Solutions of non-electrolytes	molecular weight determination.	Using the smart board and solving mathematical problems	discussion
9	3	Solution of electrolytes	properties, Arrhenius theory of dissociation, theory of strong	Using the smart board and solving mathematical	discussion

			electrolytes, ionic strength	problems	
10	3	Solution of electrolytes	Debye-Huchle theory, coefficients expressing colligative properties.	Using the smart board and solving mathematical problems	discussion
11	3	Ionic equilibria	Ionic equilibria, modern theories of acids, bases and salts, acid-base equilibria	Using the smart board and solving mathematical problems	discussion
12	3	Ionic equilibria	calculation of pH, acidity constants, the effect of ionic strength and free energy.	Using the smart board and solving mathematical problems	discussion
13	3	Buffer solution	Buffered and isotonic solutions	Using the smart board and solving mathematical problems	discussion
14	3	Buffer solution	Buffer equation; buffer capacity	Using the smart board and solving mathematical problems	discussion
15	3	Buffer solution	methods of adjusting tonicity and pH; buffer and biological system.	Using the smart board and solving mathematical problems	discussion

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Martin´s physical pharmacy and pharmaceutical sciences, Patrick J. Sinko . Wolters Kluwer. Lippincott Williams &Wilkins. Philadelphia. 2011.
Main References (sources)	Physicochemical Principles of Pharmacy by Alexander Taylor Florence and David Attwood
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	Medscape, PubMed, Google scholar research articles

جامعة البيان

Course Description (25)

1. Course Title	Physical pharmacy II
2. Course Code	402210
3. Semester/Year	second semester- 2024/2025
4. Description Preparation Date	2024
5. Available Attendance Form	Attendance at the college
6. No. of Hours (Total)	5 hours (3 theoretical + 2 practical)
7. No. of Credits (Total)	4 credits
8. Course Administrator Name	Asst. Prof. Dr Hassanien Sagban Taghi Lecturer Gailany Ismail
9. E-mail	h.sagban@albayan.edu.iq

10. Course Objectives :

In the theoretical part: understanding and applying quantitative and theoretical principles of different states of matter and ways to benefit from them in the fields of pharmacy. It also helps the pharmacist calculate the solubility, compatibility and biological activity of drugs. As a result of this knowledge, it will help in the development of new drugs and formulations as well as in improving various drug delivery methods.

Knowledge	**A1**	Enabling students to collect and understand the degree of solubility and distribution phenomena.
	A2	Enabling students to collect and understand the degree of reactions and the effect of temperature and other factors on the reaction speed.
	A3	Enabling students to obtain the degree of viscosity of liquids and rheology.
	A4	Enabling students to obtain and understand the properties of surfaces and colloidal solutions
Skills	**B1**	Solve mathematical problems related to the course.
	B2	Presentation of a topic on a specific subject.
	B3	Writing scientific reports.

	B4	Small group tasks
Values	**C1**	Educating students on professional humanitarian work and promoting and consolidating professional and ethical values among students to practice the pharmacist profession.
	C2	Raising students in the culture of integrity and fighting corruption in all its forms
	C3	Training students to respect the rights of the beneficiaries of their profession, their culture, religion, gender, race, and training the students to respect the freedom of thought, expression and creativity of others
	C4	Developing students' sense of responsibility during the study period and during work and enhancing the spirit cooperation and teamwork upon request.

11. Teaching and Learning Strategies

1.	Using data show devices and showing lecture slides	**4.**	Surprise quizzes
2.	Giving homework	**5.**	Conducting scientific experiments, and writing reports
3.	Conducting scientific discussions in class and presenting seminars	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3	Solubility and distribution phenomena,	solvent-solute interactions, solubility of gases in liquids, solubility of liquids in liquids.	Using the smart board and solving mathematical problems	discussion
2	3	Solubility and distribut phenomena,	solubility of non-ionic solids in liquids	Using the smart board and solving mathematical problems	Short quiz
3	3	Solubility and distribut phenomena,	distribution of solutes between immiscible solvents	Using the smart board and solving mathematical problems	discussion
4	3	Kinetics	rate and orders of reactions	Using the smart board and solving mathematical problems	discussion
5	3	Kinetics	influence of temperature and other factors on reactions rate	Using the smart board and solving mathematical problems	discussion
6	3	Kinetics	decomposition of medicinal agents and accelerated stability analysis.	Using the smart board and solving mathematical problems	discussion
7	3	Rheology	Newtonian systems, thixotropy measurement	Using the smart board and solving mathematical problems	discussion
8	3	Rheology	Negative thixotropy,	Using the smart board and solving mathematical problems	discussion
9	3	Rheology	determination of thixotropy.	Using the smart board and solving mathematical problems	discussion

10	3	Interfacial Phenomena	Differentiate among different types of interfaces and describe relevant examples in the pharmaceutical sciences.	Using the smart board and solving mathematical problems	discussion
11	3	Interfacial Phenomena	surface and interface tension measurements.	Using the smart board and solving mathematical problems	discussion
12	3	Interfacial Phenomena	Classify surface-active agents and appreciate their applications in pharmacy	Using the smart board and solving mathematical problems	discussion
13	3	Colloids	dispersed system and pharmaceutical application	Using the smart board and solving mathematical problems	discussion
14	3	Colloids	Types of colloidal systems, kinetic properties	Using the smart board and solving mathematical problems	discussion
15	3	Colloids	diffusion, zeta potential, solubilization.	Using the smart board and solving mathematical problems	discussion

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20 practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Martin´s physical pharmacy and pharmaceutical sciences, Patrick J. Sinko . Wolters Kluwer. Lippincott Williams &Wilkins. Philadelphia. 2011.
Main References (sources)	Physicochemical Principles of Pharmacy by Alexander Taylor Florence and David Attwood
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	Medscape, PubMed, Google scholar research articles

جامعة البيان

Course Description (55)

1. Course Title	Industrial pharmacy 2
2. Course Code	405102
3. Semester/Year	The first / 2023-2024
4. Description Preparation Date	20/9/2024
5. Available Attendance Form	Attendance at college
6. No. of Hours (Total)	(5) Five hours (3 theoretical + 2 practical)
7. No. of Credits (Total)	**4**
8. Course Administrator Name	Asst. Prof. Dr. Mustafa Raad Abdel Baqi + lecturer. Alaa Saleh
9. E-mail	Mustafa.raad@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Introducing students to methods of manufacturing pills and laboratory equipment used in the laborator pharmaceutical factory.
	A2	Introducing students to the methods of manufacturing capsules, the raw materials and the various dev used for this.
	A3	Introducing students to the techniques and devices used in grain evaluation
	A4	Introducing students to the different methods of packaging pills and laboratory equipment used in laboratory or pharmaceutical factory.
Skills	**B1**	Teaching students to acquire the skill of manufacturing grains and evaluating them using labora equipment
	B2	Teaching students to acquire the skill of measuring drug release and pill disintegration using labora equipment in media similar to the media inside the body in the stomach and intestines.
	B3	Teaching students to acquire the skill of controlling the release of medicine from the capsule
	B4	Teaching students to acquire the skill of manufacturing capsules in more than one way
Values	**C1**	Educating students on professional humanitarian work and promoting and consolidating professional ethical values among students to practice the profession of pharmacist.
	C2	Developing students' sense of responsibility during the study period and during work, and enhancing spirit of cooperation and teamwork among students.
	C3	Raising students in the culture of integrity and fighting corruption in all its forms
	C4	Training students to respect the rights of the beneficiaries of their profession, their culture, religion, gen and race, and training students to respect the freedom of thought, expression, and creativity of others.

11. Teaching and Learning Strategies

1.	Explaining and presenting the theoretical material using a visual projector.	**4.**	Conducting practical experiments to apply the theoretical material practically.
2.	Use the whiteboard to illustrate some mathematical operations and illustrative diagrams.	**5.**	Writing scientific reports related to practical experiments and conducting the necessary calculations for the experiments by students.

3.	Showing explanatory video clips showing the form and method of operation of the devices used in pharmaceutical laboratories during the pharmaceutical manufacturing process.	**6.**	Discussing with students during theoretical and practical lectures to convey the idea of the lecture or laboratory in a smooth and easy way

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	3	Introduction to the grain industry	Introducing how to manufacture	1. Explaining and presenting theoretical material using a vi projector.	1. Conducting semester and f exams
2	3	Grain industry	Various assessments of the grain industry	2. Use the whiteboard to illust some mathematical operations illustrative diagrams.	2. Conduct short daily exams a each lecture.
3	3	Grain evaluation	Determining factors for grain evaluation	3. Showing explanatory video c showing the form and metho operation of the devices usec pharmaceutical laboratories du the pharmaceutical manufactu process.	3. Conducting short oral and wri exams in the laboratory.
4	3	Problems of the grain industry	Identify the most important obstacles and l to get rid of them	4. Conducting practical experim to apply the theoretical mat practically.	4. Evaluation of reports for prac experiments.
5	3	Cereal packaging	Learn about the different methods packaging grains	5. Writing scientific reports rel to practical experiments conducting the neces calculations for the experiments students.	
6	3	Quality control of grains	The most important tests to evaluate grains	6. Discussing with students du theoretical and practical lecture convey the idea of the lecture laboratory in a smooth manner facilitates the student's learning understanding of the scien material.	
7	3	Hard capsule manufacturing	Hard capsule manufacturing and evaluation		
8	3	Hard capsule evaluation	Different methods of evaluation		
9	3	Softgel manufacturing	Different manufacturing methods and t evaluation		

10	3	Softgel evaluation	Learn about the different ways to eval capsules		
11	3	Microcapsule manufacturing	Manufacture of microcapsules using var methods And learn about its types		
12	3	Semi-solids	Learn about manufacturing methods factors		
13	3	Evaluation of semi-solids	Influencing its absorption and effectivenes		
14	3	Aerosol manufacturing	Learn about methods for evaluating s materials		
15	3	Aerosol evaluation	Methods of manufacturing aerosol		

13. Course Evaluation	
Semester pursuit: 40 marks (20 theoretical aspect + 20practical aspect) End of semester exam: 60 marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	The Theory and Practice of Industrial Pharmacy by Leon Lachman 4th ed 2013
Main References (sources)	Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 3ed Michael E. Aulton (Author). Churchill, Livingstone Elsevier.
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	YouTube / Google scholar / USP / BP

Course Description (32)

1. Course Title	**Pharmaceutical Technology 1**
2. Course Code	**403103**
3. Semester/Year	**1st Semester / 3rd stage / 2023-2024**
4. Description Preparation Date	**20/9/2024**
5. Available Attendance Form	**Attendance at college Laboratory**
6. No. of Hours (Total)	**5 (3 theoretical + 2 practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Assist. lecturer. Gailani Ismael, Assist. lecturer Alaa Mahdi Salah**
9. E-mail	**Gailani.ismael@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**The ability to perform calculations related to various pharmaceutical preparations.**
	A2	**The ability to differentiate between different pharmaceutical dosage forms.**
	A3	**The ability to select the ideal method and additives for preparing pharmaceutical dosage forms.**
	A4	**The ability to choose the appropriate dosage form for active pharmaceutical ingredients.**
Skills	**B1**	**Solving specific problems.**
	B2	**Presenting the material in key points.**
	B3	**Writing scientific reports.**
	B4	**Small group tasks.**
Values	**C1**	**Midterm and final exams.**
	C2	**Short quizzes.**
	C3	**Discussions within small groups.**
	C4	**Assessment of laboratory reports.**

11. Teaching and Learning Strategies

1.	**explanation and presentation of the material using a visual projector.**	**4.**	**Facilitating discussion sessions for students.**
2.	**Conducting supporting scientific video presentations.**	**5.**	
3.	**Reports and practical assignments.**	**6.**	

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12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	3	Solutions	Solutions	The solution and its type	Discussions and practical result evaluation
2	3	+	Solubility and the factors affecting it	olubility and the factors affecting	Discussions and practical res evaluation
3	3	Solubility and factors affecting it	Solvents	Classifications of solutions	Discussions and practical res evaluation
4	3	Solvents	Aromatic solutions	Aqueous solutions and aromatic solutions	Discussions and practical res evaluation
5					Midterm exam
6	3	Syrups and sugar-based syrups	Syrups and sugar-based syrups	Syrups and sugar-based syrups	Discussions and practical res evaluation
7	3	Purification of solutions	Purification of solutions	Filtration of solutions	Discussions and practical res evaluation
8	3	Alcoholic preparations	Alcoholic preparations	Preparation of solutions, alcoholic solutions, and elixirs	Discussions and practical res evaluation
9	3	Elixirs	Elixirs	Preparation of solutions, alcoholic solutions, and elixirs	Discussions and practical res evaluation
10	3	Elixirs	Elixirs	Preparation of solutions, alcoholic solutions, and elixirs	Discussions and practical res evaluation
11	3	Extracted substances	Extraction and maceration	sing the smartboard and conducti scientific experiments	Discussions and practical res evaluation
12	3		Tinctures	Using the smartboard and solving mathematical problems	Discussions and practical res evaluation
13	3	Extracted substances	Colloidal solutions	sing the smartboard and conducti scientific experiments	Discussions and practical res evaluation
14	3	Tinctures	Colloidal solutions	Using the smartboard and solving mathematical problems	Discussions and practical res evaluation
15	3	Tinctures	Suspensions and emulsions	Using the smartboard	Discussions and practical res

					evaluation
16	3	Colloidal solutions	Extraction and maceration	sing the smartboard and conducti scientific experiments	Discussions and practical res evaluation
17	3	Colloidal solutions	Solutions	The solution and its type	Short exam
18					Final exam

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13. Course Evaluation	
..Semesterpursuit:40marks(20theoreticalaspect+20practicalaspect) Endofsemesterexam:60marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Ansel's pharmaceutical dosage forms and drug . Delivery 10th Edition by loyd Allen (Author)
Main References (sources)	1- American pharmacy 2-. Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 3ed Michael E. Aulton (Author). Churchill, Livingstone- Elsevier
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (37)

1. Course Title	**Pharmaceutical Technology 2**
2. Course Code	**403209**
3. Semester/Year	**2nd Semester / 3rd stage / 2023-2024**
4. Description Preparation Date	**20/9/2024**
5. Available Attendance Form	**Attendance at college Laboratory**
6. No. of Hours (Total)	**5 (3 theoretical + 2 practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Assist. Lec. Ahmed H. Salman, Assist. Lec.Alaa M. Salah**
9. E-mail	**Ahmed.s@albayan.edu.iq**

10. Course Objectives

Knowledge	A1	The ability to perform calculations related to various pharmaceutical preparations.
	A2	The ability to differentiate between different pharmaceutical dosage forms.
	A3	The ability to select the ideal method and additives for preparing pharmaceutical dosage forms.
	A4	The ability to choose the appropriate dosage form for active pharmaceutical ingredients.
Skills	B1	Solving specific problems.
	B2	Presenting the material in key points.
	B3	Writing scientific reports.
	B4	Small group tasks.
Values	C1	Midterm and final exams.
	C2	Short quizzes.
	C3	Discussions within small groups.
	C4	Assessment of laboratory reports.

11. Teaching and Learning Strategies

1.	explanation and presentation of the material using a visual projector.	4.	Facilitating discussion sessions for students.
2.	Conducting supporting scientific video presentations.	5.	
3.	Reports and practical assignments.	6.	

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12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	3	Emulsions	The purpose of emulsions, methods preparing emulsions	Using the smartboard, conducting scientific experiments & solving mathematical problems.	Discussions and practical results evaluation
2	3	Emulsions	Emulsifying agents	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
3	3	Emulsions	HLB (Hydrophilic-Lipophilic Bala system, stability of emulsions, creaming breaking	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
4	3	Collodions and collodions	Types of collodions and collodions	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
5				Using the smartboard, conducting scientific experiments & solving mathematical problems	Midterm exam
6	3	Suppositories	Types and formulas of suppository bases	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
7	3	Suppositories	Preparation of suppositories	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
8	3	Semi-solid dosage forms	Ointments, creams, and pastes	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
9	3	Semi-solid dosage forms	Types of ointment bases	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
10	3	Eye ointments	Eye ointments	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation

11	3	Powders as a dosage form	Methods for reducing and determining the of solid materials	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
12	3	Powders and granules	Bulk and divided powders	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
13	3	Powders and granules	Benefits of powders	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
14	3	Capsules	Hard and soft gelatin capsules	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
15	3	Capsules	Problems in preparing solid dosage forms	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
16	3	Incompatibilities	Physical, chemical, and therape incompatibilities	Using the smartboard, conducting scientific experiments & solving mathematical problems	Discussions and practical results evaluation
17	3	Emulsions	The purpose of emulsions, methods preparing emulsions	Using the smartboard, conducting scientific experiments & solving mathematical problems	Short exam
18					Final exam

13. Course Evaluation	
Semesterpursuit:40marks(20theoreticalaspect+20practicalaspect) Endofsemesterexam:60marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Ansel's pharmaceutical dosage forms and drug . Delivery 10th Edition by loyd Allen (Author)
Main References (sources)	1- American pharmacy 2-. Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 3ed Michael E. Aulton (Author). Churchill, Livingstone- Elsevier
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (51)

1. Course Title	**Pharmaceutical industry 1**
2. Course Code	**404211**
3. Semester/Year	**2nd Semester / Forth stage / 2023-2024**
4. Description Preparation Date	**28/3/2024**
5. Available Attendance Form	**Attendance at college Laboratory**
6. No. of Hours (Total)	**5 (3 theoretical + 2 practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Assist. Prof. Mustafa Raad**
9. E-mail	**Mustafa.raad@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Introducing students to the basic operations during pharmaceutical manufacturing within pharmaceutical factories, which inc mixing, grinding, drying, purification, filtration, calibration, and how to produce sustained-release medications and learning a their types.
	A2	Introducing students to how effervescent tablets are manufactured and their characteristics as a dosage form in a practical applied manner within the laboratory.
	A3	Educating students on the specifications and necessary properties of a drug and the impact of the materials that must be a before manufacturing.
	A4	Acquainting students with the optimal methods for manufacturing long-term dosage forms of medications and how to eva them.
Skills	**B1**	Educating students to acquire the skill of manufacturing effervescent tablets.
	B2	Teaching students to acquire the skill of measuring the flow of solid powders using more than one method.
	B3	Educating students to acquire the skill of calculating the necessary density for the flow of solid powders.
	B4	Teaching students to acquire the skill of manufacturing long-term medicinal tablets and methods of evaluating them
Values	**C1**	Midterm and final exams
	C2	Quizzes
	C3	Discussions within small groups
	C4	Seminar

11. Teaching and Learning Strategies

1.	Explanation and presentation of theoretical material using a visual projector.	**4.**	Facilitating discussion sessions for students.
2.	Conducting scientific video presentations.	**5.**	Quick questions during the lesson.
3.	Reports and homework assignments.	**6.**	Simple exams.

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12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	3	Mixing (Part One)	Mixing of Liquids - Flow Properties	1- Explanation and presentation of theoretical material using a visual projector. 2- Utilizing a whiteboard for conducting and illustrating some mathematical operations and explanatory diagrams. 3- Showcasing video clips that explain the shape and method of operation of the equipment used inside pharmaceutical factories during the drug	Discussions and conducting sh exams
2	3	Mixing (Part Two)	Mixing Mechanisms - Mixing Equipment		Discussions and conducting sh exams
3	3	Mixing (Part Three)	Continuous and Batch Mixing of Liqui Dynamics		Short exam
4	3	Grinding (Part One)	Mixing of Semi-Solid Substances Mechanism of Mixing - Mixing Equipn for Semi-Solid Forms - Dough Mixers		Discussions and conducting sh exams
5					Midterm exam
6	3	Grinding (Part Two)	Factors Influencing Grinding, Mil Techniques Selection, Grinding Technique		Discussions and conducting sh exams
7	3	Drying (Part One)	Moisture Measurement (Theory of Drying)		Discussions and conducting sh exams
8	3	Drying (Part Two)	Drying of Solid Materials - Behavior of Sc During Drying / Drying Rate		Discussions and conducting sh exams
9	3	Drying (Part Three)	Classification of Solid Materials Based Drying Behavior - Types of Dryer Specialized Drying Methods		Discussions and conducting sh exams
10	3	Purification and Filtration (Part One)	Definition and Pharmaceutical Applicatio Filtration - Filtration Theory - Filtra Media - Filtration Aids		Discussions and conducting sh exams
11	3	Purification and Filtration (Part Two)	Filtration Equipment - Laboratory Filtra Processes - Safety Test - Filtration F Selection		Discussions and conducting sh exams
12	3	Calibration (Part One)	Checking the Integrity of the Metho Microbial Mortality Kinetics - Calibra Methods		Discussions and conducting sh exams
13	3	Calibration (Part Two)	Thermal Methods - Non-Thermal Metho Chemical Method - Surface Sanitization		Discussions and conducting sh exams

14	3	Sustained-Release Products (Part One)	Definition of Management Pathway Effec Formulation Preparations - Eye Medicine	manufacturing process.	Discussions and conducting sh exams
15	3	Sustained-Release Products (Part Two)	Freeze-Dried Products - Long-ac Formulations - Formulation Developme Compound Systems or Dissolving Systems		Discussions and conducting sh exams
16	3	Sustained-Release Products (Part Three)	Selection of Solvents - Solubilization Added Materials		Discussions and conducting sh exams
17	3	Mixing (Part One)	Containers - Quality Control		Short exam
18					Final exam

13. Course Evaluation	
Semesterpursuit:40marks(20theoreticalaspect+20practicalaspect) Endofsemesterexam:60marks	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	8. Shargel L., Yu AB., (Eds). Applied Biopharmaceutics and Pharmacokinetics
Main References (sources)	Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 3ed Michael E. Aulton (Author). Churchill, Livingstone- Elsevier
Recommended Books & References (Scientific Journals, Reports …)	Pharmaceutic journal (MDPI) https://www.mdpi.com/journal/pharmaceutics
Websites or Electronic References	YouTube / Google Scholar /Medscape/ USP / BP

جامعة البيان

Course Description (10)

1. Course Title	**Pharmaceutical calculation**
2. Course Code	**401209**
3. Semester/Year	**Second semester – 2024/2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Theoretical: two hours per week for 15 weeks. Practical: two hours per week for 15 weeks.**
6. No. of Hours (Total)	**2 hours theoretical + 2 hours practical**
7. No. of Credits (Total)	**3 credits**
8. Course Administrator Name	**Assistant lecturer: Maha Hikmat Philip Assistant lecturer: Ahmad Hamid Salman**
9. E-mail	**Maha.hikmat@albayan.edu.iq**

10. Course Objectives		
Knowledge	**A1**	**Facilitate students' ability to identify the various categories of numbers a abbreviations frequently utilized in medical prescriptions, along w comprehending their significance.**
	A2	**Aid students in grasping the elements comprising a typical prescription, as well the diverse unit systems and their interconnections.**
	A3	**Equip students with the knowledge and comprehension of instruments utilized measuring weights and volumes.**
	A4	**Assist students in identifying the methods for calculating medication dosa grounded on various principles.**
Skills	**B1**	**Enable students to acquire the skill of writing scientific reports.**
	B2	**Enable students to possess pharmaceutical calculation abilities.**
	B3	**Enable students to possess the skills of working in laboratories and conduct scientific experiments.**
	B4	**Enable students to read and interpret all medical and pharmaceutical terms and symbols, also supporting pharmaceutical culture among students and within community.**
Values	**C1**	**Educate students about professional humanitarian work and enhance and ins professional and ethical values in students for practicing the pharmacy profession**
	C2	**Instill in students a culture of integrity and combatting corruption in all its forms.**
	C3	**Develop a sense of responsibility in students during their study and work perio and promote a spirit of cooperation and teamwork among students.**
	C4	**Train students to respect the rights of beneficiaries of their profession, includ their culture, religion, gender, and ethnicity, and to respect the freedom of thoug expression, and creativity of others.**

11. Teaching and Learning Strategies			
1.	Using the strategy of cooperation and assistance during the teaching process.	4.	Using websites and electronic references.
2.	Field visits to ministries and educational institutions related to the field.	5.	Assigning students tasks that require self-explanatory explanations in causal ways.
3.	Organizing seminars, courses, and workshops for students that promote spiritual values.	6.	Forming discussion groups during lectures.

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Distinguishing between different terms for balanced solutions.	Ionically balanced solutions and acidic solutions.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
2	2	Applying the basic principles of physics and chemistry in calculations related to balanced solutions.	Ionically balanced solutions and acidic solutions.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
3	2	Applying specific calculations fo preparing balanced solutions.	Ionically balanced solutions and acidic solutions.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
4	2	Calculation of milliequivalents different formulas.	Miligram, milliequivalents, millimoles and milliosmoles.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
5	2	Conversion between Miligram a milliequivalents.	Miligram, milliequivalents, millimoles and milliosmoles.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
6	2	The calculations related to millimoles and milliosmoles. problems.	Miligram, milliequivalents, millimoles and milliosmoles.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
7	2	The calculations related Milliequivalent problems.	Miligram, milliequivalents, millimoles and milliosmoles.	Explaining information from the data show And solution of calculatio	Group discussions and evaluation of results.

				on white board.	
8	2	Performing calculations for diluting pharmaceutical solution	Changing product concentrations using concentrated solutions.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
9	2	Performing calculations for increasing the concentration of pharmaceutical solutions.	Changing product concentrations using concentrated solutions.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
10	2	Performing calculations for preparing and using concentrate standard solutions.	Changing product concentrations using concentrated solutions.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
11	2	Applications involving mixing solutions of different concentrations of pharmaceutica forms.	Changing product concentrations using concentrated solutions.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
12	2	Performing calculations for intravenous solutions for adults and children.	Intravenous solutions, injections, and rapid flow.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
13	2	Performing calculations for additives to intravenous solution	Intravenous solutions, injections, and rapid flow.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
14	2	Performing calculations for additives to intravenous solution	Intravenous solutions, injections, and rapid flow.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.
15	2	Application of specialized tables for the rapid flow of intravenous solutions.	Intravenous solutions, injections, and rapid flow.	Explaining information from the data show And solution of calculatio on white board.	Group discussions and evaluation of results.

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13. Course Evaluation	
Semester pursuit: 40 marks (20 marks for theoretical aspect + 20 marks for practical aspects) **End of semester exam: 60 marks.**	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Ansel, "Pharmaceutical calculations", Wolters Kluwer. , 2010.**
Main References (sources)	**Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 3rd Michael E. Aulton (Author) Churchill,**
Recommended Books & References (Scientific Journals, Reports …)	**Elsevier**
Websites or Electronic References	**Google scholar, science direct research gate, pubmed and academia**

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Course Description (2)

1. Course Title	**Principles of Pharmacy**
2. Course Code	**401102**
3. Semester/Year	**First semester 2024/2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Theoretical**
6. No. of Hours (Total)	**2 hours**
7. No. of Credits (Total)	**2 credits**
8. Course Administrator Name	**Assistant lecturer: Maha Hikmat Philip**
9. E-mail	**Maha.hikmat@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**Enable students to recognize the types of numbers, and abbreviations Commonly used in medical prescriptions, and their meanings.**
	A2	**Enable students to understand the components of a standard prescription, t different unit systems, and their relationship.**
	A3	**Enable students to acquire and understand tools for measuring weights and volumes.**
	A4	**Enable students to recognize how to calculate medication dosages based different principles.**
Skills	**B1**	**Enable students to possess pharmaceutical calculation abilities.**
	B2	**Enable students to acquire the skill of writing scientific reports.**
	B3	**Enable students to possess the skills of working in laboratories and conducting scientific experiments.**
	B4	**Enable students to read and interpret all medical and pharmaceutical terms and symbols, also supporting pharmaceutical culture among students and within the community.**
Values	**C1**	**Educate students about professional humanitarian work and enhance and instill professional and ethical values in students for practicing the pharmac profession.**
	C2	**Instill in students a culture of integrity and combatting corruption in all its forms.**
	C3	**Train students to respect the rights of beneficiaries of their profession, including their culture, religion, gender, and ethnicity, and to respect the freedom of thought, expression, and creativity of others.**
	C4	**Develop a sense of responsibility in students during their study and work periods, and promote a spirit of cooperation and teamwork among students**

11. Teaching and Learning Strategies			
1.	Using the strategy of cooperation and assistance during the teaching process.	4.	Forming discussion groups during lectures.
2.	Field visits to ministries and educational institutions related to the field.	5.	Assigning students tasks that require self-explanatory explanations in causal ways.
3.	Organizing seminars, courses, and workshops for students that promote spiritual values.	6.	Using websites and electronic references.

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Fundamentals measurements& calculation	Fundamentals measurements & calculation	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
2	2	Interpretation of prescriptic and medication orders	Translation of prescriptions and medication orders.	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
3	2	Interpretation of prescriptic and medication orders	Translation of prescriptions and medication orders.	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
4	2	The International System of Units	The International System of Units	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
5	2	The International System of Units	The International System of Units	Explaining informatic from the data show and solution of calculations on white	Group discussions and evaluation of results.

				board.	
6	2	The Unified Measurement System and the Internal Conversion System	Common Systems of Measurement and internal conversion.	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
7	2	General considerations for the Unified Measurement System, Internal Conversio System, and Dosage Calculation	Conversion between measurement systems	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
8	2	Calculation of doses: general considerations.	Calculation of doses: general considerations.	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
9	2	Calculation of doses: patients parameters.	Calculation of doses: patients parameters.	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
10	2	Calculation of doses: patients parameters.	Calculation of doses: patients parameters.	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
11	2	Calculation of doses: patients parameters.	Calculation of doses: patients parameters.	Explaining informatic from the data show	Group discussions and evaluation of results.

				and solution of calculations on white board.	
12	2	Density, specific gravity and specific volume	Density, specific gravity and specific volume	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
13	2	Density, specific gravity and specific volume	Density, specific gravity and specific volume	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
14	2	Reducing and enlarging formulas.	Reducing and enlarging formulas.	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
15	2	Reducing and enlarging formulas.	Reducing and enlarging formulas.	Explaining informatic from the data show and solution of calculations on white board.	Group discussions and evaluation of results.
					Final exam

13. Course Evaluation	
30 marks for written exams throughout the semester and 70 marks for the final exam.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	
Main References (sources)	**Pharmaceutical Calculation, Howard C Ansel, 13th Edition2010**
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	**Google scholar, science direct, research gate, pubmed and academia**

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Course Description (64)

1. Course Title	Advanced Pharmaceutical Analysis
2. Course Code	405211
3. Semester/Year	Second / fifth
4. Description Preparation Date	2024
5. Available Attendance Form	Formal attendance
6. No. of Hours (Total)	3 hours over 15 weeks
7. No. of Credits (Total)	4
8. Course Administrator Name	Lecturer Dr. Haider Sultani
9. E-mail	Haider.s@albayan.edu.iq

10. Course Objectives

Knowledge	A1	Ultraviolet (UV) spectroscopy
	A2	IR spectroscopy
	A3	NMR spectroscopy
	A4	Mass spectroscopy
Skills	B1	Illustration means
	B2	Solve questions related to the course
	B3	Follow up on external references
	B4	Enhancing students' confidence by conducting scientific discussions using modern method
Values	C1	Asking questions about topics that can be discussed by students
	C2	Asking questions that the student solves for the classroom
	C3	Conduct quick intellectual tests
	C4	Understanding the needs of the students to optimize the learning process

11. Teaching and Learning Strategies

1.	Lectures	4.	Conducting oral exams
2.	Reading methodical books	5.	Conducting surprise written tests
3.	Conducting scientific	6.	Conduct discussions among

	discussions		**students under the supervision of the responsible teacher**

The Structure of the Course					
Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	3	Definition and application in the scientific and pharmaceutical field	Introduction to UV spectroscopy	Lectures	Pop quizzes and discussions
2	3	Definition and application in the scientific and pharmaceutical field	Sample preparation, Wood ward rule & Beer lambert law	Lectures	Pop quizzes and discussions
3	3	Definition and application in the scientific and pharmaceutical field	Introduction to IR spectroscopy	Lectures	Pop quizzes and discussions
4	3	Definition and application in the scientific and pharmaceutical field	Factors affecting IR spectroscopy	Lectures	Pop quizzes and discussions
5	3	Definition and application in the scientific and pharmaceutical field	Wave number of functional Groups and application of IR	Lectures	Pop quizzes and discussions
6	3	Definition and application in the scientific and pharmaceutical field	Introduction to NMR Spectroscopy	Lectures	Pop quizzes and discussions
7	3	Definition and application in the scientific and pharmaceutical field	Chemical shift for functional Groups and factors effecting it	Lectures	Pop quizzes and discussions

8	Mid-term Examination				
9	3	Definition and application in the scientific and pharmaceutical field	Types and number of signals, splitting patterns (j coupling value)	Lectures	Pop quizzes and discussions
10	3	Definition and application in the scientific and pharmaceutical field	Identification of unknown Compounds using NMR spectroscopy	Lectures	Pop quizzes and discussions
11	3	Definition and application in the scientific and pharmaceutical field	Introduction to Mass-Spectroscopy	Lectures	Pop quizzes and discussions
12	3	Definition and application in the scientific and pharmaceutical field	Basic terms (Molecular ion peak) And fragmentation rules	Lectures	Pop quizzes and discussions
13	3	Definition and application in the scientific and pharmaceutical field	Rearrangements in Mass spectroscopy	Lectures	Pop quizzes and discussions
14	3	Definition and application in the scientific and pharmaceutical field	Identification of unknown Compounds using Mass spectroscopy	Lectures	Pop quizzes and discussions
15	Final Examination				

Course Evaluation .12	
Distribution of the grade out of 100 (60 Final exam, 20 practical, 20 "interim grades) according to the tasks assigned to the student, such as daily preparation, .daily, oral, monthly, written exams, reports, etc	
Learning & Teaching Resources .13	
Required textbooks (curricular if any)	Spectrometric Identification of Organic Compounds by Silverstein, Bassler and .Morrill
Main References (sources)	Applications of absorption spectroscopy of organic compounds by Dyer JR; Organic chemistry by McMurry, 5th edition, Thomason learning CA, USA, 2000
Recommended Books & References (Scientific Journals, Reports …)	يتوفر مراجع مساندة في محرك البحث google /https://www-keeler.ch.cam.ac.uk/lectures
Websites or Electronic References	https://www2.chemistry.msu.edu/faculty/reusch/virttxtjml/Spectrpy/spectro.htm#content

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Course Description (35)

1. Course Title	**Organic pharmaceutical chemistry**
2. Course Code	403207
3. Semester/Year	**second / third**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Formal attendance**
6. No. of Hours (Total)	**3**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Lecturer Dr. Ameer Alwash**
9. E-mail	**ameer.hussein@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Know the biological effectiveness, if any, of the chemical composition
	A2	Know and study the functional groups of the drugs included in the study
	A3	Linking the chemical structure and biological effectiveness of drugs
	A4	Identify some types of medications, including methods of preparation a diagnosis, and explain how to avoid unwanted side effects from the dru included in the study.
Skills	**B1**	Illustration means
	B2	Solve questions related to the course
	B3	Follow up on external references
	B4	Enhancing students' confidence by conducting scientific discussions us modern methods
Values	**C1**	Asking questions about topics that can be discussed by students
	C2	Asking questions that the student solves for the classroom
	C3	Conduct quick intellectual tests
	C4	

11. Teaching and Learning Strategies			
1.	Lectures	4.	Conducting oral exams
2.	Reading methodical books	5.	Conducting surprise written tests
3.	Conducting scientific discussions	6.	Conduct discussions among students under the supervision of the responsible teacher

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3 theo hours	Definition and application the scientific a pharmaceutical field	General pathways of drug metaboli Sites of drug biotransformation; R of -cytochrome P450 mono oxidative oxygena biotransformation; Oxidat reactions; Reductive reactio Hydrolytic reactions; Phase reactions	Lectures	Pop quizzes a discussions
2	3 theo hours	Definition and application the scientific a pharmaceutical field	**Drug distribution**	Lectures	Pop quizzes a discussions
3	3 theo hours	Definition and application the scientific a pharmaceutical field	General pathways of drug metaboli Sites of drug biotransformation; R of -cytochrome P450 mono oxidative oxygena biotransformation; Oxidat reactions; Reductive reactio Hydrolytic reactions; Phase reactions	Lectures	Pop quizzes a discussions
4	3 theo hours	Definition and application the scientific a pharmaceutical field	Acid – Base properties	Lectures	Pop quizzes a discussions
5	3 theo hours	Definition and application the scientific a pharmaceutical field	General pathways of drug metaboli Sites of drug biotransformation; R of -cytochrome P450 mono oxidative oxygena	Lectures	Pop quizzes a discussions

			biotransformation; Oxidat reactions; Reductive reactic Hydrolytic reactions; Phase reactions		
6	3 thec hours	Definition and application the scientific a pharmaceutical field	QSAR Model	Lectures	Pop quizzes a discussions
7	3 thec hours	Definition and application the scientific a pharmaceutical field	General pathways of drug metaboli Sites of drug biotransformation; R of -cytochrome P450 mono oxidative oxygena biotransformation; Oxidat reactions; Reductive reactic Hydrolytic reactions; Phase reactions	Lectures	Pop quizzes a discussions
8	Mid-term Examination				
9	3 thec hours	Definition and application the scientific a pharmaceutical field	Molecular modeling Comput aided drug (Drug receptor a design) interaction: force involve	Lectures	Pop quizzes a discussions
10	3 thec hours	Definition and application the scientific a pharmaceutical field	Factors affecting drug metabolism	Lectures	Pop quizzes a discussions
11	3 thec hours	Definition and application the scientific a pharmaceutical field	Steric Features of drugs	Lectures	Pop quizzes a discussions
12	3 thec hours	Definition and application the scientific a pharmaceutical field	Optical isomerism and a biological activity Calcula conformation	Lectures	Pop quizzes a discussions
13	3 thec hours	Definition and application the scientific a	Three-dimensional qustructu activityre activity relationship a	Lectures	Pop quizzes a discussions

		pharmaceutical field	databases and isosterism		
14	3 theo hours	Definition and application the scientific a pharmaceutical field	Drug-receptor interaction and subsequ events.	Lectures	Pop quizzes a discussions
15	Final Examination				

13. Course Evaluation	
Distribution of the grade out of 100(60 Final exam, 20 practical, 20" interimgrades)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)	Wilson and Gisvold's Textbook of Organic Medicinal John M. Beale, ed. ve and Pharmaceutical Chemistry 12 Jr., John H Block.
Main References (sources)	Wilson and Gisvold's Textbook of Organic Medicinal John M. Beale, ed. ve and Pharmaceutical Chemistry 12 Jr., John H Block.
Recommended Books & References (Scientific Journals, Reports …)	Foye's Principles of Medicinal Chemistry by David A. Williams and Thomas L.Lemke
Websites or Electronic References	Google for searching practical pharmaceutical chemistry

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Course Description (16)

1. Course Title	**Organic chemistry II**
2. Course Code	402101
3. Semester/Year	**2023-2024**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**attendance in the college**
6. No. of Hours (Total)	**Three hours weakly for 15 weeks (theoretical)** **Two hours weakly for 15 weeks (practical)**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Lecturer Ameer Alwash** **Assist. Lec. Baraa ghasan**
9. E-mail	**Zeyad.Najmuldeen@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Understand the concepts of organic chemistry
	A2	The chemistry of drugs one related scaffolds
	A3	Study the organic chemistry Functional groups
	A4	Organic Synthesis and reactions

Skills	B1	Organic chemistry lab analysis
	B2	Functional group detection
	B3	Identification of organic compounds
	B4	Learning the best laboratory practice
Values	C1	Team work among the working environment
	C2	Preserve the environment
	C3	Perfect self discipline
	C4	Dealing with chemicals and laboratory devices

11. Teaching and Learning Strategies

1.	**Quizzes**	4.	**Oral exams**
2.	**Reports**	5.	**Mid exam**
3.	**Focus group learning**	6.	**Final exam**

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11.Syllabus

Evaluation methods	Learning methods	Subjects	RLOs	Hours	Week
Quizzes	Lectures	Benzene and aromatic compounds (Theory)	Synthesis and reaction	3	1
Quizzes	Lectures	Electrophilic Aromatic Substitution	Synthesis and reaction	3	2
Quizzes	Lectures	Phenol I	Synthesis and reaction	3	3
Quizzes	Lectures	Phenol II	Synthesis and reaction	3	4
Quizzes	Lectures	Carboxylic Acid I	Synthesis and reaction	3	5
Quizzes	Lectures	Carboxylic Acid I	Synthesis and reaction	3	6
Quizzes	Lectures	Functional Derivatives of Carboxylic acids I	Synthesis and reaction	3	7

			mid exam	1.5	8
Quizzes	Lectures	Functional Derivatives of Carboxylic acids II	Synthesis and reaction	3	9
Quizzes	Lectures	Aldehydes I	Synthesis and reaction	3	10
Quizzes	Lectures	Aldehydes II	Synthesis and reaction	3	11
Quizzes	Lectures	Ketone	Synthesis and reaction	3	12
Quizzes	Lectures	Amine I	Synthesis and reaction	3	13
Quizzes	Lectures	Amine II	Synthesis and reaction	3	14
			final Exam	3	15

13. Course Evaluation	
Semester 40 marks (20 theoretical)& (20 practical) 60 marks final exam	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Organic" Boyd R.N and Morrison R.T. - Hall, Prentice Edition th6 Chemistry" .(1992) USA Inc.
Main References (sources)	Organic" McMurry John Thomson Edition th7 Chemistry" .(2008) USA Inc. Learning,
Recommended Books & References (Scientific Journals, Reports …)	Scientific Journals And updated knowledges
Websites or Electronic References	Search for organic chemistry

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Course Description (23)

1. Course Title	**Organic chemistry III**
2. Course Code	402208
3. Semester/Year	**2024-2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Physical attendance in the college**
6. No. of Hours (Total)	**Two hours weakly for 15 weeks (theoretical)** **Two hours weakly for 15 weeks (practical)**
7. No. of Credits (Total)	**3**
8. Course Administrator Name	**Assist.lect.Zeyad duraid Najmuldeen** **Assist. Lec. Baraa ghasan**
9. E-mail	**Zeyad.alhialy@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Understand the concepts of heterocyclic organic chemistry
	A2	The chemistry of drugs one related heterocyclic scaffolds
	A3	Study the organic chemistry heterocyclic Functional groups
	A4	Organic heterocyclic compounds Synthesis and reactions
S	**B1**	heterocyclic Organic chemistry lab analysis

kills	B2	heterocyclic Functional group detection
	B3	Identification of heterocyclic organic compounds
	B4	Learning the best laboratory practice
Values	C1	Team work among the working environment
	C2	Preserve the environment
	C3	Perfect self discipline
	C4	Dealing with chemicals and laboratory devices

11. Teaching and Learning Strategies

1.	**Quizzes**	4.	**Oral exams**
2.	**Reports**	5.	**Mid exam**
3.	**Focus group learning**	6.	**Final exam**

11. بنية المقرر					
Week	Hours	RLOs	Subjects	Learning methods	Evaluation methods
1	2	Synthesis and reaction	Nomenclature of heterocyclic compounds	Lectures	Quizzes
2	2	Synthesis and reaction	Electrophilic Aromatic Substitution	Lectures	Quizzes
3	2	Synthesis and reaction	Pyrrole	Lectures	Quizzes
4	2	Synthesis and reaction	Furan and thiophene	Lectures	Quizzes
5	2	Synthesis and reaction	Six-membered ring heterocyclic	Lectures	Quizzes
6	2	Synthesis and reaction	Structure & reactions of pyridine.	Lectures	Quizzes
7	2	Synthesis and reaction	Saturated five-membered heterocyclic compounds.	Lectures	Quizzes

			mid exam	1.5	8
Quizzes	Lectures	Functional Derivatives of Carboxylic acids II	Synthesis and reaction	2	9
Quizzes	Lectures	Heterocyclic of five member rings with two & three heteroatoms	Synthesis and reaction	2	10
Quizzes	Lectures	Heterocyclic of six member rings with two & three heteroatoms	Synthesis and reaction	2	11
Quizzes	Lectures	Fused Heterocyclic Compounds	Synthesis and reaction	2	12
Quizzes	Lectures	Quinolones	Synthesis and reaction	2	13
Quizzes	Lectures	Quinolones	and Synthesis reaction	2	14
			final Exam		15

13. Course Evaluation	
Semester 40 marks (20 theoretical)& (20 practical) 60 marks final exam	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Organic" Boyd R.N and Morrison R.T. - Hall, Prentice Edition th6 Chemistry" .(1992) USA Inc.
Main References (sources)	Organic" McMurry John Thomson Edition th7 Chemistry" .(2008) USA Inc. Learning,
Recommended Books & References (Scientific Journals, Reports …)	Scientific Journals And updated knowledges
Websites or Electronic References	Search for organic chemistry

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Course Description (54)

1. Course Title	Organic Pharm. Chemistry IV
2. Course Code	405101
3. Semester/Year	First / fifth
4. Description Preparation Date	2024
5. Available Attendance Form	Formal attendance
6. No. of Hours (Total)	2
7. No. of Credits (Total)	2
8. Course Administrator Name	Lecturer Dr. Haider Sultani
9. E-mail	Haider.s@albayan.edu.iq

10. Course Objectives

Knowledge	A1	Know the biological effectiveness, if any, of the chemical composition
	A2	Know and study the functional groups of the drugs included in the study
	A3	Linking the chemical structure and biological effectiveness of drugs
	A4	Identify some types of medications, including methods of preparation and diagno and explain how to avoid unwanted side effects from the drugs included in the stuc
Skills	B1	Illustration means
	B2	Solve questions related to the course
	B3	Follow up on external references
	B4	Enhancing students' confidence by conducting scientific discussions using modern method
Values	C1	Asking questions about topics that can be discussed by students
	C2	Asking questions that the student solves for the classroom
	C3	Conduct quick intellectual tests
	C4	Understanding the needs of the students to optimize the learning process

11. Teaching and Learning Strategies

1.	Lectures	4.	Conducting oral exams
2.	Reading methodical books	5.	Conducting surprise written tests
3.	Conducting scientific	6.	Conduct discussions among

	discussions		**students under the supervision of the responsible teacher**

The Structure of the Course					
Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2	Definition and application in the scientific and pharmaceutical field	Historical overview of Prodrugs and its progression	Lectures	Pop quizzes and discussions
2	2	Definition and application in the scientific and pharmaceutical field	Introduction of prodrugs	Lectures	Pop quizzes and discussions
3	2	Definition and application in the scientific and pharmaceutical field	Several examples of prodrugs are given	Lectures	Pop quizzes and discussions
4	2	Definition and application in the scientific and pharmaceutical field	Studying Wermuth classification Including examples of this type	Lectures	Pop quizzes and discussions
5	2	Definition and application in the scientific and pharmaceutical field	Studying prodrugs of functional Groups Including examples of this type	Lectures	Pop quizzes and discussions
6	2	Definition and application in the scientific and pharmaceutical field	Polymeric prodrugs and its Classification, several examples are given	Lectures	Pop quizzes and discussions
7	2	Definition and application in the scientific and pharmaceutical field	Bioprecursors prodrug and its Classification, several examples are give	Lectures	Pop quizzes and discussions
8	Mid-term Examination				

9	2	Definition and application in the scientific and pharmaceutical field	Introduction to Medicinal Chemistry and its importance	Lectures	Pop quizzes and discussions
10	2	Definition and application in the scientific and pharmaceutical field	Why the urgent need for the discovery of new drugs	Lectures	Pop quizzes and discussions
11	2	Definition and application in the scientific and pharmaceutical field	Combinatorial chemistry as an important tool in drug discovery	Lectures	Pop quizzes and discussions
12	2	Definition and application in the scientific and pharmaceutical field	Types of combinatorial chemistry Solid phase vs solution phase Techniques	Lectures	Pop quizzes and discussions
13	2	Definition and application in the scientific and pharmaceutical field	The role of computer aid drug design in drug discovery	Lectures	Pop quizzes and discussions
14	4	Definition and application in the scientific and pharmaceutical field	Report preparation and discussion	Lectures	Pop quizzes and discussions
15	Final Examination				

12. 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.

13. Learning & Teaching Resources	
Required textbooks (curricular if any)	Wilson and Gisvold Textbook of Organic medicinal and pharmaceutical chemistry Delgado JN, Remers WA, (Eds); 12th ed, 2011
Main References (sources)	The Practice of Medicinal Chemistry 4th Edition by Camille Georges Wermuth, David Aldous, Pierre Raboisson & Didier Rognan, 2015
Recommended Books & References (Scientific Journals, Reports …)	Fundamentals in Medicinal Chemistry, Gareth Thomas: Combinatorial Chemistry, Chapter 6
Websites or Electronic References	https://mcule.com/apps/1-click-docking http://www.swissdock.ch

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Course Description (42)

1. Course Name	Organic Pharmaceutical Chemistry II
2. Course Code	404102
3. Semester/year	First/fourth semester
4. Date this description was prepared	2024
5. Available attendance forms	Official working hours
6. Number of study hours (total)	three hours (over 15 weeks during the first semester)
7. Number of units (total)	4
8. Name of the course administrator	Assistant Lecturer ziyad duraid Assistant lecturer yaqen alhaq Fathallah Ghazi
Email	ziyad@albayan.edu.iq

9. Course objectives

ow dge	أ١	Knowing a group of compounds present in the body and similar drugs
	أ٢	Know and study the effective combinations of the drugs included in the study
	أ٣	Linking the chemical structure and biological effectiveness of drugs
	أ٤	Identify some types of drugs and the relationship of their chemical composition to their effectiveness, and explain how to avoid unwanted sic effects from the drugs included in the study.
ills	ب١	Means of illustration
	ب٢	**Solve questions related to the course**
	ب٣	**Follow up on external sources**
	ب٤	Enhancing students' confidence by conducting scientific discussions using modern methods
lue	ج١	**Asking questions about topics that can be discussed by students**
	ج٢	**Asking questions that the student solves for the classroom**
	ج٣	**Conduct quick intellectual tests**
	ج٤	The student must respect the opinions of his colleagues when discussing a to

10. Teaching and learning strategies			
١.	Lectures	٤.	Conducting oral exams
٢.	Reading methodical books	٥.	Conducting surprise written tests
٣.	Conducting scientific discussions	٦.	Conducting discussions among students under the supervision of the responsible teacher

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Course structure .11					
the week	hours	Required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
١	3 hours theory	efinition and application in the scientific and pharmaceutical field	Cholinergic agents, cholinergic receptors and their subtypes.	Lectures	Pop quizzes and discussions
٢	3 hours theory	efinition and application in the scientific and pharmaceutical field	Cholinergic agonists; stereochemistry and structure-activity **relationships (SAR);**	Lectures	Pop quizzes and discussions
٣	3 hours theory	efinition and application in the scientific and pharmaceutical field	products; cholinesterase inhibitors.	Lectures	Pop quizzes and discussions
٤	3 hours theory	efinition and application in the scientific and pharmaceutical field	Cholinergic blocking agent; structure-activity relationships (SAR); olanaceous alkaloid and analogues;	Lectures	Pop quizzes and discussions
٥	3 hours theory	efinition and application in the scientific and pharmaceutical field	synthetic cholinergic blocking agents and products; ganglionic blocking agents (neuromuscular blocking agents).	Lectures	Pop quizzes and discussions
٦	3 hours theory	efinition and application in the scientific and pharmaceutical field	Analgesic agents (SAR of morphine, SAR of meperidine type molecules; SAR of methadone type ompounds; Nmethylbezomorphans,	Lectures	Pop quizzes and discussions
٧	3 hours theory	efinition and application in the scientific and pharmaceutical field	antagonist type analgesics in benzomorphans). Analgesic receptors, endogenous opioids;	Lectures	Pop quizzes and discussions

٨	First mid-semester exam				
٩	3 hours theory	efinition and application in the scientific and pharmaceutical field	Products; cough agents; Anti-inflammatory analgesics. Adrenergic agents (Adrenergic neurotransmitters);	Lectures	Pop quizzes and discussions
١٠	3 hours theory	efinition and application in the scientific and pharmaceutical field	Adrenergic ceptors; Drugs affecting Adrenergic neurotransmission;	Lectures	Pop quizzes and discussions
١١	3 hours theory	efinition and application in the scientific and pharmaceutical field	mpathomimetic agents; Adrenergic receptor antagonists.	Lectures	Pop quizzes and discussions
١٢	3 hours theory	efinition and application in the scientific and pharmaceutical field	CNS depressant; Benzodiazepines and related compounds; Barbiturates; CNS depressant with skeletal muscle relaxant properties;	Lectures	Pop quizzes and discussions
١٣	3 hours theory	efinition and application in the scientific and pharmaceutical field	Antipsycotics; Anticonvulsants.	Lectures	Pop quizzes and discussions
١٤	3 hours theory	efinition and application in the scientific and pharmaceutical field	CNS Stimulants, Steroidal & nonsteroidal hormones	Lectures	Pop quizzes and discussions
١٥	Final exam for the first semester				

Course evaluation .12	
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.	
Learning and teaching resources .13	
Required prescribed books (Methodology, if any)	Wilson and Gisvold Textbook of Organic Medicinal and Pharmaceutical Chemistry; Delgado JN, Remers WA
Main references (Sources)	Organic pharmaceutical chemistry textbooks
Recommended supporting books and references (Scientific journals, reports….)	New research and articles
electronic references, Internet sites	Google for searching practical pharmaceutical chemistry

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Course Description (48)

1. Course Name	Organic Pharmaceutical Chemistry III
2. Course Code	404208
3. Semester/year	Second /fourth stage
4. Date this description was prepared	2024
5. Available attendance forms	Official working hours
6. Number of study hours (total)	three hours (over 15 weeks during the first semester)
7. Number of units (total)	4
8. Name of the course administrator	**Assistant lec. Shahbaa Shafeeq Rzoqi** **Assistant lec. Ziad Duraid Najm Al-Din**
Email	Shahbaa.s@albayan.edu.iq

9. Course objectives		
Kn led	أ١	Know the different groups of antibiotics
	أ٢	Know and study the effective combinations of the drugs included in the study
	أ٣	Linking the chemical structure and biological effectiveness of drugs and improving effectiveness
	أ٤	Explain how to avoid unwanted side effects from the drugs studied
Ski	ب١	Means of illustration
	ب٢	**Solve questions related to the course**
	ب٣	**Follow up on external sources**
	ب٤	Enhancing students' confidence by conducting scientific discussions using modern methods
Val	ج١	**Asking questions about topics that can be discussed by students**
	ج٢	**Asking questions that the student solves for the classroom**
	ج٣	**Conduct quick intellectual tests**
	ج٤	**The student must respect the opinions of his colleagues when discussin**

		a topic

10. Teaching and learning strategies

١.	Lectures	٤.	Conducting oral exams
٢.	Reading methodical books	٥.	Conducting surprise written tests
٣.	Conducting scientific discussions	٦.	Conducting discussions among students under the supervision of the responsible teacher

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Course structure .11					
the week	hours	Required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
١	3 heoretical hours	finition and application in the scientific and pharmaceutical field	β-Lactam antibiotics (Penicillins)	Lectures	Pop quizzes and discussions
٢	3 heoretical hours	finition and application in the scientific and pharmaceutical field	**β-Lactamase inhibitors**	Lectures	Pop quizzes and discussions
٣	3 heoretical hours	finition and application in the scientific and pharmaceutical field	Cephalosporins and Monobactams.	Lectures	Pop quizzes and discussions
٤	3 heoretical hours	finition and application in the scientific and pharmaceutical field	Aminoglycosides and Chloramphenicol;	Lectures	Pop quizzes and discussions
٥	3 heoretical hours	finition and application in the scientific and pharmaceutical field	Tetracylines; Macrolides; Lincomycins and Polypeptides;	Lectures	Pop quizzes and discussions
٦	3 heoretical hours	finition and application in the scientific and pharmaceutical field	tiviral agents (properties of viruses, viral classification, products).	Lectures	Pop quizzes and discussions
٧	3 heoretical hours	finition and application in the scientific and pharmaceutical field	Sulfonamides (chemistry, omenclature, mechanism of action, resistance, toxicity, side effects, metabolism, protein binding, distribution and SAR); products;	Lectures	Pop quizzes and discussions

			Sulfones.		
٨	First mid-semester exam				
٩	3 heoretical hours	finition and application in the scientific and pharmaceutical field	Anti-neoplastic agents:;	Lectures	Pop quizzes and discussions
١٠	3 heoretical hours	finition and application in the scientific and pharmaceutical field	Alkylating agents;	Lectures	Pop quizzes and discussions
١١	3 heoretical hours	finition and application in the scientific and pharmaceutical field	Antimetabolites;	Lectures	Pop quizzes and discussions
١٢	3 heoretical hours	finition and application in the scientific and pharmaceutical field	Antibiotics; Plant products	Lectures	Pop quizzes and discussions
١٣	3 heoretical hours	finition and application in the scientific and pharmaceutical field	Miscellaneous compounds. Monoclonal antibodies; Gene therapy of cancer.	Lectures	Pop quizzes and discussions
١٤	3 heoretical hours	finition and application in the scientific and pharmaceutical field	ormones and related compounds; Future anti-neoplastic agents;	Lectures	Pop quizzes and discussions
١٥	Final exam for the first semester				

Course evaluation .12	
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.	
Learning and teaching resources .13	
Required prescribed books (Methodology, if any)	Wilson and Gisvold Textbook of Organic Medicinal and Pharmaceutical Chemistry; Delgado JN, Remers WA
Main references (Sources)	Faye's Principles of Medicinal Chemistry by David A. Williams and Thomas L.Lemke.
Recommended supporting books and references (Scientific journals, reports….)	New research and articles
electronic references, Internet sites	Google for searching practical pharmaceutical chemistry

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Course Description (3)

1. Course Title	**Analytical chemistry**
2. Course Code	**401103**
3. Semester/Year	**First semester / First year**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Formal attendance**
6. No. of Hours (Total)	**4**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Lecturer Dr. Haider Namh Sultani** **Assistant lec. Shahbaa shafeeq rzoqi**
9. E-mail	**Haider.s@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	provide students with a theoretical background in chemical principles that is essential to practice chemical analysis
	A2	enables students to be understanding the importance of judging the accuracy a precision of experimental data and techniques of quantitative analysis
	A3	Laboratory safety rules, glassware laboratory, prepare solutions from solids a liquids, volumetric analysis (Titration)
	A4	
Skills	**B1**	Illustration means
	B2	Solve questions related to the course
	B3	Follow up on external references
	B4	Enhancing students' confidence by conducting scientific discussions us modern methods
Values	**C1**	Asking questions about topics that can be discussed by students
	C2	Asking questions that the student solves for the classroom
	C3	Conduct quick intellectual tests
	C4	

11. Teaching and Learning Strategies			
1.	Lectures	4.	Conducting oral exams
2.	Reading methodical books	5.	Conducting pop-quizzes
3.	Conducting scientific discussions	6.	Conduct discussions among students under the supervision of the responsible teacher

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3 theory hours	Definition and application in the scientific and pharmaceutical fie	Review of elementary concept important to analytical chemistry: strong and weak electrolytes, importance weight and concentration	Lectures	Pop-quizzes and Discussion
2	3 theory hours	Definition and application in the scientific and pharmaceutical fie	Review of elementary concept important to analytical chemistry: strong and weak electrolytes importance weight and concentration	Lectures	Pop-quizzes and Discussion
3	3 theory hours	Definition and application in the scientific and pharmaceutical fie	The evaluation to gravimetric data, definition of terms.	Lectures	Pop-quizzes and Discussion
4	3 theory hours	Definition and application in the scientific and pharmaceutical fie	The evaluation to gravimetric data, definition of ter	Lectures	Pop-quizzes and Discussion
5	3 theory hours	Definition and application in the scientific and pharmaceutical fie	An introduction to gravimetric analysis statistical analysis of data, rejection of data, precipitation methods	Lectures	Pop-quizzes and Discussion
6	3 theory hours	Definition and application in the scientific and pharmaceutical fie	An introduction to gravimetric analysis statistical analysis of data, rejection of data,	Lectures	Pop-quizzes and Discussion

			precipitation methods		
Mid Examination					
8	3 theory hours	Definition and application in the scientific and pharmaceutical fie	The scope of application of gravimetric analysis , inorganic ar organic precipitating agents	Lectures	Pop-quizzes and Discussion
9	3 theory hours	Definition and application in the scientific and pharmaceutical fie	The scope of application of gravimetric analysis , inorganic ar organic precipitating agents	Lectures	Pop-quizzes and Discussion
10	3 theory hours	Definition and application in the scientific and pharmaceutical fie	An introduction to volumetric methods of analysis, volumetric calculations acid-base equilibria and PH calculations	Lectures	Pop-quizzes and Discussion
11	3 theory hours	Definition and application in the scientific and pharmaceutical fie	An introduction to volumetric methods of analysis, volumetric calculations acid-base equilibria and PH calculations	Lectures	Pop-quizzes and Discussion
12	3 theory hours	Definition and application in the scientific and pharmaceutical fie	neutralization titrations of complex systems	Lectures	Pop-quizzes and Discussion
13	3 theory hours	Definition and application in the scientific and pharmaceutical fie	neutralization titrations of complex systems	Lectures	Pop-quizzes and Discussion
14	3 theory hours	Definition and application in the scientific and pharmaceutical fie	calculation of PH in complex syste	Lectures	Pop-quizzes and Discussion
15	3 theory hours	Definition and application in the scientific and pharmaceutical fie	calculation of PH in complex syste	Lectures	Pop-quizzes and Discussion
Final Examination					

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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)	**-Fundamentals of Analytical chemistry by - Skoog and West 8th.ed.(2008). -Chemical Analysis in the Laboratory A Basic Guide, by I. Mueller-Harvey and R. M. Baker, ISBN 0-85404-646-1**
Main References (sources)	**- Modern Pharmaceutical Drug Analysis, by L. Zechmeister) - And L. Von Cholnoky, ISBN (13) : 978-81-224-2718-9**
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	**Google for searching practical analytical chemistry**

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Course Description (12)

1. Course Title	**Organic Chemistry I**
2. Course Code	**401211**
3. Semester/Year	**Second semester/ first year**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Formal attendance**
6. No. of Hours (Total)	**4**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Lecturer dr. Haider Namh Sultani** **Assistant lec. Shahbaa Shafeeq**
9. E-mail	**Haider.s@albayan.edu.iq**

10. Course Objectives		
Knowledge	**A1**	To enable students to understand the chemistry of carbon, and classification, properties, and reactions of organic compounds.
	A2	Understanding the basic structure and properties of alkanes, alkenes and alkynes, in addition to the principles of stereochemistry and features of aromatic compounds.
	A3	
	A4	
Skills	**B1**	Illustration means
	B2	Solve questions related to the course
	B3	Follow up on external references
	B4	Enhancing students' confidence by conducting scientific discussions us modern methods
Values	**C1**	Asking questions about topics that can be discussed by students
	C2	Asking questions that the student solves for the classroom
	C3	Conduct quick intellectual tests
	C4	

11. Teaching and Learning Strategies

1.	Lectures	4.	Conducting oral exams
2.	Reading methodical books	5.	Conducting pop-quizzes
3.	Conducting scientific discussions	6.	Conduct discussions among students under the supervision of the responsible teacher

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12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	3 theory hours	Definition and application in the scientific and pharmaceutical fie	Introduction to organic chemistry	Lectures	Pop-quizzes and Discussion
2	3 theory hours	Definition and application in the scientific and pharmaceutical fie	Alkanes and methane	Lectures	Pop-quizzes and Discussion
3	3 theory hours	Definition and application in the scientific and pharmaceutical fie	Alkynes and dienes	Lectures	Pop-quizzes and Discussion
4	3 theory hours	Definition and application in the scientific and pharmaceutical fie	Alkynes and dienes	Lectures	Pop-quizzes and Discussion
5	3 theory hours	Definition and application in the scientific and pharmaceutical fie	Stereochemistry I & II	Lectures	Pop-quizzes and Discussion
6	3 theory hours	Definition and application in the scientific and pharmaceutical fie	Stereochemistry I & II	Lectures	Pop-quizzes and Discussion
Mid Examination					
8	3 theory hours	Definition application in scientific pharmaceutical fie	Alcohols and ethers.	Lectures	Pop-quizzes and Discussion
9	3 theory hours	Definition application in scientific	Alcohols and ethers.	Lectures	Pop-quizzes and Discussion

		pharmaceutical fie			
10	3 theory hours	Definition application in scientific pharmaceutical fie	Alcohols and ethers.	Lectures	Pop-quizzes and Discussion
11	3 theory hours	Definition application in scientific pharmaceutical fie	Alcohols and ethers.	Lectures	Pop-quizzes and Discussion
12	3 theory hours	Definition application in scientific pharmaceutical fie	Alkyl halides.	Lectures	Pop-quizzes and Discussion
13	3 theory hours	Definition application in scientific pharmaceutical fie	Alkyl halides.	Lectures	Pop-quizzes and Discussion
14	3 theory hours	Definition application in scientific pharmaceutical fie	Cycloalkanes	Lectures	Pop-quizzes and Discussion
Final Examination					

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)	1- Organic Chemistry by Robert T. Morrison and Robert N. Boyd. 2- Organic Chemistry by McCurry; 5th ed. Thomason learning; CA,USA; 2000
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	**Google for searching practical organic chemistry**

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Course Description (62)

1. Course Name	Applied Therapeutics 2
2. Course Code	405209
3. Semester/year	Fifth stage students, second semester
4. Date this description was prepared	2024–2025
5. Available attendance forms	Attendance at college
6. Number of study hours (total)	3 Theoretical
7. Number of units (total)	2
8. Name of the course administrator	Lect. Dr. Ekhlas Khammas Hasan
Email	Ekhlas.k@albayan.edu.iq

9. Course objectives		
Knowledge	**A1**	To be able to identify pathological conditions recorded in the patient's tympanum
	A2	–To be able to communicate with the patient in general diseases outpatient clinics
	A3	To be able to educate the patient regarding medications
	A4	To be able to match incorrect therapeutic methods with what is found in the sources
Skills	**B1**	Skills to identify new alternative medicines
	B2	Skills to determine the most important goal of treating common diseases
	B3	Enabling students to possess the skills to diagnose medical errors in the use and dispensing of medications

	B4	Enabling students to possess the skills to use scientific research tools in the academic and scientific fields
Value	**C1**	Developing students' sense of belonging to and loyalty to the homeland
	C2	Educating students on professional humanitarian work and promoting and consolidating professional and ethical values among students to practice the profession of pharmacist.
	C3	Developing students' sense of responsibility during the study period and duri work, and enhancing the spirit of cooperation and teamwork among students
	C4	Training students to respect the rights of the beneficiaries of their profession, their culture, religion, gender, and race, and training students to respect the freedom of thought, expression, and creativity of others.

10. Teaching and learning strategies

١.	Semester and final exams	٤.	Discussing the pathological conditions specific to each disease and the correct ways to treat them
٢.	Short exams during the lectures	٥.	
٣.	Discussions in small groups	٦.	

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Course structure .11					
the week	hours	Required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
1	2	Adrenal gland diseases	Adrenal gland diseases	Data Show	theoretical exam, Class discussions
2	2	Thyroid diseases	Thyroid diseases	Data Show	theoretical exam, Class discussions
3	2	Alzheimer's disease	Alzheimer's disease	Data Show	theoretical exam, Class discussions
4	2	Fatigue and anxiety	Fatigue and anxiety	Data Show	theoretical exam, Class discussions
5	2	Depression diseases	Depression diseases	Data Show	theoretical exam, Class discussions
6	2	Schizophrenia	Schizophrenia	Data Show	theoretical exam, Class discussions
7	2	Contraceptives	Contraceptives	Data Show	theoretical exam, Class discussions
8	2	Menstrual disorder diseases	Menstrual disorder diseases	Data Show	theoretical exam, Class discussions
9	2	Hormone replacement therapy	Hormone replacement therapy	Data Show	theoretical exam, Class discussions
10	2	Introduction to cancer	Introduction to cancer	Data Show	theoretical exam, Class discussions
11	2	Blood cancers - acute leukemia	lood cancers - acute leukemia	Data Show	theoretical exam, Class discussions
12	2	Blood cancers - chronic leukemia	Blood cancers - chronic leukemia	Data Show	theoretical exam, Class discussions
13	2	breast cancer	breast cancer	Data Show	theoretical exam, Class discussions

14	2	Prostate cancer	Prostate cancer	Data Show	Theoretical exam, class discussions
15	2	Negative effects of cancer treatments	Negative effects of cancer treatments	Data Show	Theoretical exam, class discussions
16	1	Antibiotic prophylaxis before Surgery	ntibiotic prophylaxis before surgery	Data Show	Theoretical exam, class discussions

	12. 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.
	13. Learning and teaching resources

Required prescribed books (Methodology, if any)	Pharmacotherapy Principle and Practice 6th editing
Main references (Sources)	Barbara G.Wells &Joseph T.Diririo, Pharmacotherapy ha book 7th editing
Recommended supporting books and references (Scientific journals, reports....)	PubMed, pharmacy access.
electronic references, Internet sites	YouTube / Google scholar

جامعة البيان

Course Description (56)

1. Course Title	**Applied Therapeutics I**
2. Course Code	405103
3. Semester/Year	**Fifth Year, First Semester**
4. Description Preparation Date	2024
5. Available Attendance Form	Attendance at college
6. No. of Hours (Total)	3 **hours theory per week**
7. No. of Credits (Total)	3
8. Course Administrator Name	Lect. Dr. Ekhlas khammas hasan
9. E-mail	ekhlas.k@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	To be able to identify pathological conditions proven in the patient's prescription
	A2	To be able to communicate with the patient in general diseases outpatient clinics
	A3	To be able to educate the patient regarding medications
	A4	To be able to match incorrect therapeutic methods with what is found in reliable medical resources
Skills	**B1**	Skills to follow therapeutic methods
	B2	Skills to identify new alternative medications
	B3	Enabling students to possess the skills to identify medical errors in the use and dispensing of medications
	B4	Enabling students to acquire self-learning skills to acquire new information, skills and knowledge
Values	**C1**	Develop students' sense of belonging to and loyalty to their homeland
	C2	Raising students on humanitarian and professional work
	C3	Developing students' sense of responsibility during the period of study and work

	C4	Enhancing the spirit of cooperation and teamwork among students

11. Teaching and Learning Strategies

1.	Explaining and presenting the theoretical material using a visual projector	**4.**	Writing scientific reports related to medical cases, correct treatment methods, and drug follow-up for students.
2.	Use the whiteboard to illustrate some mathematical operations and illustrative diagrams	**5.**	Discussing with students during theoretical lectures to convey the idea of the lecture in a smooth way that makes it easier for the student to learn and understand the scientific material.
3.	Showing explanatory video clips showing the form and method of operation of the equipment used in pharmaceutical laboratories during the pharmaceutical manufacturing process.	**6.**	

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	3	Atherosclerosis syndrome	Atherosclerosis syndrome	Whiteboard, data show	theoretical exam, Class discussions
2	3	Arrhythmia	Arrhythmia	Whiteboard, data show	theoretical exam, Class discussions
3	3	Blood clotting and thrombosis	Blood clotting and thrombosis	Whiteboard, data show	theoretical exam, Class discussions
4	3	Dyslipidemia	Dyslipidemia	Whiteboard, data show	theoretical exam, Class discussions
5	3	Shock	Shock	Whiteboard, data show	theoretical exam, Class discussions
6	3	Nervous system diseases	Nervous system diseases	Whiteboard, data show	theoretical exam, Class discussions
7	3	Liver Cirrhosis and viral hepatitis	Liver Cirrhosis and viral hepatitis	Whiteboard, data show	theoretical exam, Class discussions
8	3	Increased intraocular pressure - Nerve Fibrosis	Increased intraocular pressure - Nerve Fibrosis	Whiteboard, data show	theoretical exam, Class discussions
9	3	Acute kidney failure	Acute kidney failure	Whiteboard, data show	theoretical exam, Class discussions
10	3	Chronic kidney failure and dialysis	Chronic kidney failure and dialysis	Whiteboard, data show	theoretical exam, Class discussions
11	3	Parenteral nutrition	Parenteral nutrition	Whiteboard, data show	theoretical exam, Class discussions
12	3	Urinary incontinence and nocturnal urination in children	Urinary incontinence and nocturnal urination in children	Whiteboard, data show	theoretical exam, Class discussions
13	3	Interpretation of laboratory results	Interpretation of laboratory results	Whiteboard, data show	theoretical exam, Class discussions

14	3	Acid – base disorders Disorders of fluid and electrolytes	Acid – base disorders Disorders of fluid and electrolytes	Whiteboard, data show	theoretical exam, Class discussions
15	3	Inflammatory bowel diseases - Systemic lupus erythematosus	Inflammatory bowel diseases - Systemic lupus erythematosus	Whiteboard, data show	theoretical exam, Class discussions

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13. Course Evaluation
توزيع الدرجة من 100 على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير .... الخ

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Pharmacotherapy Principle and Practice 6th edition
Main References (sources)	Barbara G.Wells &Joseph T.Diririo, Pharmacotherapy hand book 7th edition
Recommended Books & References (Scientific Journals, Reports …)	PubMed, pharmacy access.
Websites or Electronic References	YouTube / Google scholar

جامعة البيان

Course Description (49)

1. Course Title	**Clinical Pharmacy II**
2. Course Code	**404209**
3. Semester/Year	**Fourth year students, 2nd semester**
4. Description Preparation Date	**2024-2025**
5. Available Attendance Form	**Attendance at college**
6. No. of Hours (Total)	**2 theoretical + 2 practical**
7. No. of Credits (Total)	**3**
8. Course Administrator Name	**Asist.Lect. Ekhlas Khamas Hassan+ Asist Lect. Al-hussain Safaa**
9. E-mail	**Ekhlas.k@albayan.edu.iq**

10. Course Objectives		
Knowledge	**A1**	To be able to communicate with the patient and medical staff during the treatment stages
	A2	To be able to educate the patient regarding the medications given to them
	A3	To be able to overcome the difficulties and obstacles that hinder communicatio and drug education for patients and medical staff participating in the treatment stages.
	A4	To be able to read and dispense medical prescriptions
Ski	**B1**	Increasing communication skills with patients and medical staff during the

		treatment stages
	B2	Increasing drug education skills for patients
	B3	Increasing the skills of making sound decisions in giving correct drug consultations patients and overcoming all Obstacles that hinder the process of communication ar drug education for patients and cooperation with the medical staff involved in Therapeutic stages.
	B4	Enabling students to possess the skills of preparing pharmaceutical doses
Values	**C1**	Developing students' sense of belonging to and loyalty to the homeland.
	C2	Raising students to respect human dignity and professional humanitarian work.
	C3	Promoting and consolidating professional and ethical values among students practicing the profession of pharmacist
	C4	Raising students in a culture of integrity and fighting corruption in all its forms

11. Teaching and Learning Strategies

1.	Quizzes and oral exam.	4.	Midterm exam Final exam
2.	Encouraging reading books, research, and doing research Organizing conferences and seminars	5.	The Oski exam (a global system for testing students' speed of performance in reading and dispensing prescriptions, and a method dealing with patients)
3.	Participate in workshops	6.	Small and large discussion groups

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	1	Introduction	Introduction	ppt	theoretical exam, Class discussions
2	1	Patient care	Patient care	ppt	theoretical exam, Class discussions
3	2	Hypertension	Hypertension	ppt	theoretical exam, Class discussions
4	2	Cardiac infarction	Cardiac infarction	ppt	theoretical exam, Class discussions
5	2	Heart failure	Heart failure	ppt	theoretical exam, Class discussions
6	1	Cardiovascular disease	Cardiovascular disease	ppt	theoretical exam, Class discussions
7	2	asthma	asthma	ppt	theoretical exam, Class discussions
8	2	COPD	COPD	ppt	theoretical exam, Class discussions
9	2	DM	DM	ppt	theoretical exam, Class discussions
10	2	PUD	PUD	ppt	theoretical exam, Class discussions
11	1	Tuberculosis	Tuberculosis	ppt	theoretical exam, Class discussions
12	1	Meningitis	Meningitis	ppt	theoretical exam, Class discussions
13	1	Respiratory infections	Respiratory infections	ppt	theoretical exam, Class discussions

14	2	Gastrointestinal infections	Gastrointestinal infections	ppt	Theoretical exam, class discussions
15	2	Rheumatoid arthritis	Rheumatoid arthritis	ppt	theoretical exam, Class discussions
16	2	Osteoarithritis	Osteoarithritis	ppt	theoretical exam, Class discussions
17	1	Infectious endocarditis	Infectious endocarditis	ppt	theoretical exam, Class discussions
18	2	Gout and osteoporosis	Gout and osteoporosis	ppt	theoretical exam, Class discussions
19	1	Urinary tract infection	Urinary tract infection	ppt	theoretical exam, Class discussions
20	2	Anemia	Anemia	ppt	theoretical exam, Class discussions

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, oral and written exam, reports, Mid-term and final exams, , etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics
Main References (sources)	Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics
Recommended Books & References (Scientific Journals, Reports …)	Articles
Websites or Electronic References	World health organization, FDA (U.S. Food and Drug Administration), NCBI

جامعة البيان

Course Description (43)

1. Course Title	Clinical Pharmacy I
2. Course Code	404103
3. Semester/Year	Fourth year students, first semester
4. Description Preparation Date	2024
5. Available Attendance Form	Attendance at college
6. No. of Hours (Total)	2theoretical + 2 practical
7. No. of Credits (Total)	3
8. Course Administrator Name	ect.Dr. Ekhlas Khamas Hassan + Asist lect. Al-hussein Safaa
9. E-mail	Ekhlas.k@albayan.edu.iq

10. Course Objectives		
Knowledge	**A1**	To be able to communicate with the patient and medical staff during the treatment stages
	A2	To be able to educate the patient regarding the medications given to them
	A3	To be able to overcome the difficulties and obstacles that hinder communicat and drug education for patients and medical staff participating in the treatm stages.
	A4	To be able to read and dispense medical prescriptions
Ski	**B1**	Increasing communication skills with patients and medical staff during

		treatment stages
	B2	Increasing drug education skills for patients
	B3	Increasing the skills of making sound decisions in giving correct drug consultations patients and overcoming all Obstacles that hinder the process of communication a drug education for patients and cooperation with the medical staff involved in Therapeutic stages.
	B4	Enabling students to possess the skills of preparing pharmaceutical doses
Values	**C1**	Developing students' sense of belonging to and loyalty to the homeland.
	C2	Raising students to respect human dignity and professional humanitarian work.
	C3	Promoting and consolidating professional and ethical values among students practicing the profession of pharmacist
	C4	Raising students in a culture of integrity and fighting corruption in all its forms

11. Teaching and Learning Strategies

1.	Quizes and oral exam.	4.	Midterm exam Final exam
2.	Encouraging reading books, research, and doing research Organizing conferences and seminars	5.	The Oski exam (a global system for testing students' speed of performance in reading and dispensing prescriptions, and a method dealing with patients)
3.	Participate in workshops	6.	Small and large discussion groups

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Introduction to commur pharmacy	Introduction to commur pharmacy	ppt	theoretical exam, Class discussions
2	2	Respiratory problems	Respiratory problems	ppt	theoretical exam, Class discussions
3	2	Digestive system problems	Digestive system problems	ppt	theoretical exam, Class discussions
4	2	Practice child care	Practice child care	ppt	theoretical exam, Class discussions
5	2	Skin diseases	Skin diseases	ppt	theoretical exam, Class discussions
6	2	Women's health care	Women's health care	ppt	theoretical exam, Class discussions
7	2	Nervous system problems	Nervous system problems	ppt	theoretical exam, Class discussions
8	2	Eye problems	Eye problems	ppt	theoretical exam, Class discussions
9	2	Ear, nose and throat problems	Ear, nose and throat problems	ppt	theoretical exam, Class discussions
10	2	Oral health	Oral health	ppt	theoretical exam, Class discussions
11	2	Obesity and weight control	Obesity and weight control	ppt	theoretical exam, Class discussions
12	2	Pain and muscular system disorders The bone	Pain and muscular system disorders The bone	ppt	theoretical exam, Class discussions
13	2	Nicotine replacement therapy	Nicotine replacement therapy	ppt	theoretical exam,

					Class discussions
14	2	Nutritional supplements	Nutritional supplements	ppt	Theoretical exam, class discussions
15	2	What's new in reclassify medicines	What's new in reclassify medicines	ppt	theoretical exam, Class discussions
16	2	Medication adherence and error	Medication adherence and errors	ppt	theoretical exam, Class discussions

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, oral and written exam, reports, Mid-term and final exams, , etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Reference Text: Symptoms in the Pharmacy. A Guide to the Management of Common Illness, 6th .edition Lor waterfield, Community Pharmacy Hand Book, 5th edition
Main References (sources)	Symptoms in the Pharmacy. A Guide to the Management of Common Illness, 6th .edition, Community Pharmacy Hand Book, 5th edition
Recommended Books & References (Scientific Journals, Reports …)	Articles
Websites or Electronic References	World health organization, FDA (U.S. Food and Drug Administration), NCBI

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Course Description (63)

1. Course Title	Therapeutic Drug Monitoring
2. Course Code	405210
3. Semester/Year	Fifth year students / Second semester
4. Description Preparation Date	2025 - 2024
5. Available Attendance Form	Course system/Attendance at college
6. No. of Hours (Total)	2theoretical + 2 practical
7. No. of Credits (Total)	3
8. Course Administrator Name	Assist. Lect. Mohammed K. Abbood
9. E-mail	Mohammed.k@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Ability to communicate effectively with patients and the medical team during treatment phases.
	A2	Enabling students to educate patients about the medications prescribed to the including explaining medication instructions in detail.
	A3	Developing students' skills to overcome challenges and obstacles that may hin communication and drug education for patients and the medical team.
	A4	The ability to determine doses using medication control in a safe and effect manner.
Skills	**B1**	Develop communication skills with patients and the medical team during all sta of treatment.
	B2	Enhance medication education skills for patients to ensure their corr understanding of prescribed medications.
	B3	Enhancing sound decision-making skills in providing accurate drug consultations patients, while excelling in dealing with the challenges facing drug communicat and education processes.
	B4	Developing drug monitoring and follow-up skills for patients to ensure effectiveness of treatment.
Values	**C1**	Developing students' sense of belonging to and loyalty to the homeland.
	C2	Raising students to respect human dignity and professional humanitarian work.
	C3	Promoting and consolidating professional and ethical values among students practicing the profession of pharmacist

	C4	Raising students in a culture of integrity and fighting corruption in all its forms

11. Teaching and Learning Strategies

1.	Lectures	4.	Educational laboratories
2.	Hospital training	5.	Discussing cases
3.	Seminars	6.	

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12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Introduction	Introduction	ppt	theoretical exam, Class discussions
2	2	Review the basics of pharmacokinetics	Review the basics of pharmacokinetics	ppt	theoretical exam, Class discussions
3	2	Review the basics of pharmacodynamics	Review the basics of pharmacodynamics	ppt	theoretical exam, Class discussions
4	2	Review of clinical pharmacokinetic and clinical pharmacodynamic equations and calculations	Review of clinical pharmacokinetic and clinical pharmacodynamic equations and calculations	ppt	theoretical exam, Class discussions
5	2	Clinical pharmacokinetics and clinical pharmacodynamics in special types of patients	Clinical pharmacokinetics and clinical pharmacodynamics in special types of patients	ppt	theoretical exam, Class discussions
6	2	Clinical pharmacokinetics and clinical pharmacodynamics of antibiotics.	Clinical pharmacokinetics and clinical pharmacodynamics of antibiotics.	ppt	theoretical exam, Class discussions
7	2	Midterm exam	Midterm exam	ppt	theoretical exam, Class discussions
8	2	Clinical pharmacokinetics and clinical pharmacodynamics of cardiovascular dise drugs.	Clinical pharmacokinetics and clinical pharmacodynamics of cardiovascular disea drugs.	ppt	theoretical exam, Class discussions
9	2	Clinical pharmacokinetics and pharmacodynamics	Clinical pharmacokinetics and pharmacodynamics	ppt	theoretical exam, Class discussions
10	2	Clinical antiepileptic drugs.	Clinical antiepileptic drugs.	ppt	theoretical exam, Class discussions
11	2	Clinical pharmacokinetics and pharmacodynamics	Clinical pharmacokinetics and pharmacodynamics	ppt	theoretical exam, Class discussions

13. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, oral and written exam, reports, Mid-term and final exams, , etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Reference Text: Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics.2012 Barbara G.Wells & Joseph T. Diriro, Pharmacotherapy hand book 7th Edittion**.
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	1) Articles. 2) Internet
Websites or Electronic References	

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Course Description (65)

1. Course Title	**Hospital Training**
2. Course Code	**405212**
3. Semester/Year	**Fifth year students**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Attendance at college and hospital**
6. No. of Hours (Total)	**4 hours per week**
7. No. of Credits (Total)	2
8. Course Administrator Name	**Assit. Lect. Ekhlas Khamas Hassan & Assit. Lect. Al-Hussein Safaa**
9. E-mail	Ekhlas.k@albayan.edu.iq a.hussein@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	To be able to communicate with the patient and medical staff during treatment stages
	A2	To be able to educate the patient regarding the medications given to them
	A3	To be able to overcome the difficulties and obstacles that hinder communicat and drug education for patients and medical staff participating in the treatm stages.
	A4	To be able to read and dispense medical prescriptions
Skills	**B1**	Increasing communication skills with patients and medical staff during treatment stages
	B2	Increasing drug education skills for patients
	B3	Increasing the skills of making sound decisions in giving correct d consultations to patients and overcoming all Obstacles that hinder the process communication and drug education for patients and cooperation with the medi staff involved in
	B4	

Values	**C1**	Developing students' sense of belonging to and loyalty to the homeland.
	C2	Raising students to respect human dignity and professional humanitarian work.
	C3	Promoting and consolidating professional and ethical values among stude practicing the profession of pharmacist
	C4	Raising students in a culture of integrity and fighting corruption in all its forms

11. Teaching and Learning Strategies

1.	**Discussing case studies**	**4.**	**Written Exams**
2.	**Seminars**	**5.**	**Encouraging reading books, research, and doing research**
3.	**Oral Exams**	**6.**	**Small and large discussion groups**

The Structure of the Course .12

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	4	Surgical Ward	Language of Surgery, Surgical Prophylaxis, Types of Surgical Operation, Thromboprophylaxis, Preoperative bowel preparation	Ppt. and Hospital Training	Theoretical exam, Class discussions
2	4	Surgical Ward	Intravenous fluid therapy, Blood transfusion and blood products, Preoperative prophylaxis against aspiration pneumonia, The control of pain, Nausea and vomiting, Constipation, Peri-operative care and diabetes	Ppt. and Hospital Training	Theoretical exam, Class discussions
3	4	Surgical Ward	Perioperative medication management, Peri-operative medication in patients with cardiovascular disease,	Ppt. and Hospital Training	Theoretical exam, Class discussions
4	4	Surgical Ward	Acute appendicitis, Gallstones, Common bile duct stones, Thyroidectomy	Ppt. and Hospital Training	Theoretical exam, Class discussions
5	4	Surgical Ward	Bowel Obstruction, Pancreatitis, Hernia, Guidelines on Parenteral Nutrition in Surgery.	Ppt. and Hospital Training	Theoretical exam, Class discussions
6	4	Gynecology and Obstetrics Ward	History of the Patient, Abortion, Teratogenicity of Drugs	Ppt. and Hospital Training	Theoretical exam, Class discussions
7	4	Gynecology and Obstetrics Ward	Common Complications of Pregnancy, Nausea and Vomiting, GERD, Mendelson's Syndrome, Obstetric Cholestasis.	Ppt. and Hospital Training	Theoretical exam, Class discussions
8	4	Gynecology and Obstetrics Ward	Diabetes mellitus in pregnancy, Pre-eclampsia, Preterm Labor, Prevention of Hemolytic Disease of the Newborn	Ppt. and Hospital Training	Theoretical exam, Class discussions
9	4	Gynecology and Obstetrics Ward	Toxoplasmosis, Labor, Induction and Augmentation of labour, Obstetric Hemorrhage	Ppt. and Hospital Training	Theoretical exam, Class discussions
10	4	Gynecology and	Caesarean Section, Ectopic Pregnancy, Heavy and Irregular Menstruation,	Ppt. and Hospital	Theoretical exam,

		Obstetrics Ward	Polycystic Ovarian Syndrome, Molar Pregnancy.	Training	Class discussions
11	4	Internal Medicine Ward	Hypertension (HTN), Heart Failure, Chronic Stable Angina	Ppt. and Hospital Training	Theoretical exam, Class discussions
12	4	Internal Medicine Ward	Acute Coronary Syndrome (ACS), Venous Thromboembolism, Stroke,	Ppt. and Hospital Training	Theoretical exam, Class discussions
13	4	Internal Medicine Ward	Atrial fibrillation, Cirrhosis and Portal Hypertension,	Ppt. and Hospital Training	Theoretical exam, Class discussions
14	4	Internal Medicine Ward	Upper gastrointestinal bleeding, Diabetes Mellitus	Ppt. and Hospital Training	Theoretical exam, Class discussions
15	4	Internal Medicine Ward	Acute kidney injury, chronic kidney disease	Ppt. and Hospital Training	Theoretical exam, Class discussions
16	4	Pediatrics Ward	Neonatal Jaundice, Neonatal Sepsis and Meningitis, Nephrotic syndrome, Hemolytic-Uremic Syndrome	Ppt. and Hospital Training	Theoretical exam, Class discussions
17	4	Pediatrics Ward	Infections	Ppt. and Hospital Training	Theoretical exam, Class discussions
18	4	Pediatrics Ward	Guillain–Barré syndrome, Cerebral palsy, Febrile convulsion,	Ppt. and Hospital Training	Theoretical exam, Class discussions
19	4	Pediatrics Ward	Kawasaki disease, Acute rheumatic fever, Congenital Heart Disease, Cystic Fibrosis	Ppt. and Hospital Training	Theoretical exam, Class discussions
20	4	Pediatrics Ward	Acute Gastroenteritis, Viral Hepatitis, Wilson's disease, Diabetic ketoacidosis (DKA)	Ppt. and Hospital Training	Theoretical exam, Class discussions

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Course Evaluation .13	
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, oral and written exam, reports, Mid-term and final exams, , etc.	
Learning & Teaching Resources .14	
Required textbooks (curricular if any)	**Pharmacotherapy Principle and Practice 6th edition** **Barbara G.Wells &Joseph T.Diririo,** **Pharmacotherapy hand book 7th edition** **.PubMed, pharmacy access**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	**Current medical Diagnosis and Treatment, and guidelines.**
Websites or Electronic References	World health organization, FDA, and NCBI, UpToDate.

جامعة البيان

Course Description (61)

1. Course Title	**Pharmacoeconomics**
2. Course Code	**405208**
3. Semester/Year	**Fifth year students, second semester**
4. Description Preparation Date	**2024/2025**
5. Available Attendance Form	**Course system/Attendance at college**
6. No. of Hours (Total)	**2 theoretical * 15 weeks = 30 hours**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Asst.Lect.Ahmed Alaa Hussein**
9. E-mail	**Ahmed.al@albayan.edu.iq**

10. Course Objectives

Knowledge	A1	Enabling the graduate to communicate with patients and utilize all availa means of communication with the patient, as well as with doctors throughout medical treatment phases.
	A2	Enabling the graduate to educate patients regarding the medications they taking, including the pharmaceutical instructions provided to them, a overcoming all difficulties and barriers that prevent the delivery of the instructions to them.
Skills	B1	To be able to communicate with the patient and the medical team during the therapeutic stages.
	B2	To be able to educate the patient about the medications given to them.
	B3	To be able to overcome the difficulties and obstacles that hinder communicat and pharmaceutical education for patients and the medical team involved in therapeutic stages.
	B4	To empower students to acquire and understand the economics of drugs a pharmaceutical policy.
val s	C1	Developing communication skills with the medical team during all stages

		treatment.
	C2	Empowering students to acquire self-learning skills to absorb new informat and develop new skills and knowledge.
	C3	Using text editing, table, compound drawing, and laboratory equipment software Providing a comprehensive idea about the use of computers and their applicat in the medical field.
	C4	Developing skills in prevention and epidemiological follow-up of patients ensure the effectiveness of the pharmacist's role in public health.
	C5	Empowering students to possess skills in using scientific research tools in th field of study and the scientific field.
	C6	Empowering students to acquire skills in dialogue, discussion, and listening others, with respect for their opinions.

11. Teaching and Learning Strategies

1.	Quizes and oral exam.	4.	Midterm exam Final exam
2.	Encouraging reading books, research, and doing research Organizing conferences and seminars	5.	The Oski exam (a global system for testing students' speed of performance in reading and dispensing prescriptions, and a method dealing with patients)
3.	Participate in workshops	6.	Small and large discussion groups

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Introduction and overview of semester	Introduction and overview of semester	ppt	Theoretical exam, class discussions
2	2	Basic principles pharmacoeconomics	Basic principles pharmacoeconomics	Ppt	Theoretical exam, class discussions
3	2	Cost analysis	Cost analysis	Ppt	Theoretical exam, class discussions
4	2	Cost analysis	Cost analysis	Ppt	Theoretical exam, class discussions
5	2	Cost analysis	Cost analysis	Ppt	Theoretical exam, class discussions
6	2	Cost-effectiveness analysis	Cost-effectiveness analysis	Ppt	Theoretical exam, class discussions
7	2	Cost-benefit analysis	Cost-benefit analysis	Ppt	Theoretical exam
8	2	Midterm exam	Midterm exam		Theoretical exam, class discussions
9	2	Cost-utility analysis	Cost-utility analysis	Ppt	Theoretical exam, class discussions
10	2	Critical evaluation of econo estimation	Critical evaluation of econo estimation	Ppt	Theoretical exam, class discussions
11	2	Drug-based vs. disease-ba structures for pharmacoecono analysis	Drug-based vs. disease-ba structures for pharmacoecono analysis	Ppt	Theoretical exam, class discussions
12	2	Clinical pharmacokinetics and Clinical pharmacodynamics immunosuppressants.	Clinical pharmacokinetics and Clinical pharmacodynamics immunosuppressants.	Ppt	Theoretical exam, class discussions
13	2	Project presentations	Project presentations	Ppt	Theoretical exam, class discussions

14	2	Project presentations	Project presentations	ppt	Theoretical exam, class discussions
15	3	Final Exam	Final Exam		Theoretical exam

13. Course Evaluation	
توزيع الدرجة من 100 على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير .... الخ	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	1- Drummond MF, O'Brien B, Stoddart GL, 1 Torrance GW. Methods for the economic evaluation of health care programmes. 3rd ed.
Main References (sources)	Oxford: Oxford University Press, 2005.
Recommended Books & References (Scientific Journals, Reports …)	Articles
Websites or Electronic References	

جامعة البيان

Course Description (45)

1. Course Title	**Public Health**
2. Course Code	**404105**
3. Semester/Year	**Fourth year students, first semester**
4. Description Preparation Date	**2024/2025**
5. Available Attendance Form	**Course system/Attendance at college**
6. No. of Hours (Total)	**2 theoretical * 15 weeks = 30 hours**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Asst.Lect.Ahmed Alaa Hussein**
9. E-mail	**Ahmed.al@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Empowering the graduate to develop communication skills and interact w patients, health institutions, and to benefit from all available means to achie effective communication with the patient, the Ministry of Health, educatio institutions, and to interact with the medical team during various stages medical treatment.
	A2	Providing the graduate with the ability to guide and educate patients ab infectious and non-infectious diseases, including explaining the instructions giv to them, and overcoming any difficulties or barriers that hinder the delivery these instructions to them.
Skills	**B1**	Identifying common infectious diseases
	B2	Understanding the methods of diagnosing diseases
	B3	Understanding the body's defense mechanism against these diseases
	B4	Identifying the basic principles of pharmaceutical practices
Values	**C1**	Developing communication skills with the medical team during all stages treatment.
	C2	Empowering students to acquire self-learning skills to absorb new informat and develop new skills and knowledge.

	C3	Using text editing, table, compound drawing, and laboratory equipment software Providing a comprehensive idea about the use of computers and their applicati in the medical field.
	C4	Developing skills in prevention and epidemiological follow-up of patients ensure the effectiveness of the pharmacist's role in public health.
	C5	Empowering students to possess skills in using scientific research tools in th field of study and the scientific field.
	C6	Empowering students to acquire skills in dialogue, discussion, and listening others, with respect for their opinions.

11. Teaching and Learning Strategies

1.	Quizes and oral exam.	4.	Midterm exam Final exam
2.	Encouraging reading books, research, and doing research Organizing conferences and seminars	5.	The Oski exam (a global system for testing students' speed of performance in reading and dispensing prescriptions, and a method dealing with patients)
3.	Participate in workshops	6.	Small and large discussion groups

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Introduction: The scope and concerns of public health, health care system in Iraq	Introduction: The scope and concerns of public health, health care system in Iraq	ppt	Theoretical exam, class discussions
2	2	Measuring, Monitoring, and Evaluating the Health of a Population	Measuring, Monitoring, and Evaluating the Health of a Population	ppt	Theoretical exam, class discussions
3	2	Population screening and public health	Population screening and public health	ppt	Theoretical exam, class discussions
4	2	Prevention and control of non-communicable diseases	Prevention and control of non-communicable diseases	ppt	Theoretical exam, class discussions
5	2	Principles of infectious disease control and National immunization plan of Iraq	Principles of infectious disease control and National immunization plan of Iraq	ppt	Theoretical exam, class discussions
6	2	Communicable diseases (infections through the gastro-intestinal tract, Infections through skin and mucous membranes, Infections through the respiratory tract)	Communicable diseases (infections through the gastro-intestinal tract, Infections through skin and mucous membranes, Infections through the respiratory tract	ppt	Theoretical exam, class discussions
7	2	Mid Exam	Mid Exam		Theoretical exam
8	2	Prevention and control of public health hazards (Tobacco, alcohol, Public health aspects of illicit psychoactive drug use)	Prevention and control of public health hazards (Tobacco, alcohol, Public health aspects of illicit psychoactive drug use)	ppt	Theoretical exam, class discussions
9	2	Major health problems (Obesity, Physical activity and health,	Major health problems (Obesity, Physical activity and	ppt	Theoretical exam, class discussions

		Public mental health and suicide, Dental public health, Sexually transmitted infections, Chronic hepatitis and other liver disease, Tuberculosis	health, Public mental health and suicide, Dental public health, Sexually transmitted infections, Chronic hepatitis and other liver disease, Tuberculosis		
10	2	Family health and Environmental health	Family health and Environmental health	ppt	Theoretical exam, class discussions
11	2	Pharmacy Practice and the health care system	Pharmacy Practice and the health care system	ppt	Theoretical exam, class discussions
12	2	Introduction to Pharmaceutical car and Pharmaceutical care planning	Introduction to Pharmaceutical care and Pharmaceutical care planning	ppt	Theoretical exam, class discussions
13	2	Community pharmacy managemer And Hospital pharmacy service	Community pharmacy management And Hospital pharmacy service	ppt	Theoretical exam, class discussions
14	2	Formulary management Regulatory affairs and Rational of Drugs	Formulary management Regulatory affairs and Rational Use Drugs	ppt	Theoretical exam, class discussions
15	3	Final Exam	Final Exam		Theoretical exam

13. Course Evaluation	
توزيع الدرجة من 100 على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير .... الخ	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Lucas AO, Gilles HM, (Eds), Short Textbook of Public Health Medicine for the Tropic, (4th Ed), 2003
Main References (sources)	Public Health and Epidemiology at a Glance Margaret Somerville, K. Kumaran, Rob Anderson
Recommended Books & References (Scientific Journals, Reports …)	1. Articles 2. Oxford Textbook of Global Public Heath
Websites or Electronic References	World Health Organization (WHO) https://www.who.int

Course Description (40)

1. Course Title	**Pharmacy Ethics**
2. Course Code	**403212**
3. Semester/Year	**2024-2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Official working hours**
6. No. of Hours (Total)	**1 hour per week (for 15 weeks during the first semester)**
7. No. of Credits (Total)	**One Unit**
8. Course Administrator Name	**Asist.Prof. Dr Atheer Sabah**
9. E-mail	**Atheer@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**To be able to communicate with the patient and medical staff in therapeutic stages.**
	A2	**To be able to educate the patient regarding the medications given to them.**
	A3	**To be able to overcome the difficulties and obstacles that hinc communication and drug education for patients and medical st participating in the treatment stages.**
	A4	**Enable students to acquire and understand communication skills and medi ethics.**
Skills	**B1**	**Increase communication skills with patients and medical staff in treatment stages.**
	B2	**Increase the skills of drug education for patients.**
	B3	**1 Increase the skills of making the right decision in giving the right dr consultations to patients and overcome all obstacles that hinder the process communication and drug education for patients and cooperation with medical staff participating in the treatment stages**
	B4	**Enable students to acquire the skills of dialogue, discussion, listening to oth and accepting their opinions**
Values	**C1**	**Supporting drug culture among students and members of society**
	C2	**Educating students to respect human dignity.**
	C3	**Educating students on humanitarian and professional work and enhanc the spirit of cooperation and teamwork among students.**

	C4	**Promote and consolidate professional and ethical values among students practice the profession of pharmacist.**

11. Teaching and Learning Strategies

1.	**Seminars**	**4.**	**Lectures**
2.	**Educational Labs**	**5.**	**Case Discussion**
3.	**Hospital Training**	**6.**	**Using the strategy of cooperation and assistance during the education process and conducting field visits to the relevant ministries and educational institutions**

جامعة البيان

12. The Structure of the Course					
Evaluation Method	**Learning Method**	**Topic/Subject Name**	**RLOs**	**Hours**	**Week**
Quize, class discussions	**PowerPoint**	**Introduction to Pharmacy Ethics Theoretical Considerations**	**Introduction to Pharmacy Ethics Theoretical Considerations**	**2**	**2-1**
=	=	**Code of Ethics for Pharmacy**	**Code of Ethics for Pharmacy**	**1**	**4-3**
=	=	**Common ethical considerations in the application of pharmaceutical care**	**Common ethical considerations in the application of pharmaceutical care**	**3**	**5**
=	=	**Relations between medical professionals**	**Relations between medical professionals**	**2**	**6**
=	=	**Ethical Decision Making**	**Ethical Decision Making**	**1**	**7**
=	=	**Ethical Problems Related to Clinical Pharmacy Research**	**Ethical Problems Related to Clinical Pharmacy Research**	**1**	**8**
=	=	**Ethical problems in the clinical application of the pharmacist**	**Ethical problems in the clinical application of the pharmacist**	**1**	**9-10**

=	=	Preventing drug misuse	Preventing drug misuse	1	11
		Case Studies in Pharmacy Ethics	Case Studies in Pharmacy Ethics	3	12-14

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)	**Robert J. Cipolle, Linda M. Strand, Peter C. Morley. Pharmaceutical Care Practice: The Clinician's Guide, 2nd Edition Robert m. Veatch and Amy Haddad. Case -2 Studies in Pharmacy Ethics. second edition. Copyright © 2008 by Oxford University Press, Inc**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	**Internet , PowerPoint**
Websites or Electronic References	

جامعة البيان

Course Description (15)

1. Course Name	Arabic language
2. Course Code	401214
3. Semester / Year	Chapter Two / First Stage
4. The history of preparation of this description	2024
5. Available Attendance Forms	attendance time
6. Number of Credit Hours (Total)	Two hours
7. Number of Units (Total)	2
8. Course administrator name	Asist. Lect. Hamza Mahdi
Email	

9. Course Objectives : Helping to understand the language and know its grammar.

Kn led	**A1**	**Students should be able to acquire knowledge and understanding of the intellectual framework of the Arabic language subject.**
	A2	**Developing students' talents and abilities in literary arts through the knowledge gained.**
Ski	**B1**	**The student should be able to be familiar with the rules of the fixed language.**
	B2	**The student should develop his linguistic and literary skills.**
Val	**C1**	**Enhancing the spirit of cooperation and teamwork among students.**

s	C2	The student should contribute to the preservation of his nation's linguistic heritage.
	C3	The student should be able to instill the eloquent Arabic language and stay away from drifting behind the colloquial language.
	C4	Training students to respect the freedom of thought, expression and creativity of others.

10. Teaching and Learning Strategies

١.	Encourage reading published blogs	٤.	Forming seminars in which the student is rewarded for his answer, and his information is corrected if he makes a mistake
٢.	Making reports related to language topics.		
٣.	Writing self-reports on the lecture	٥.	Article presentation and discussion

جامعة البيان

11. Course Structure					
The week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
١	2	Recognize the concept of The following terms: (speech, speech, saying, word)	The concept of (speech, speech, saying, word)	Smart Board	Tests, Attendance Students and their participation, repor
٢	2	Know the types of name and its sign	Name, its sign and types	Smart Board	Tests, Attendance Students and their participation, repor
٣	2	Knowing what the verb is, its divisions and sign	The verb, its divisions and sign	Smart Board	Tests, Attendance Students and their participation, repor
٤	2	Know the signs of feminization	Feminine signs in nouns and verbs	Smart Board	Tests, Attendance Students and their participation, repor
٥	2	Know the missing verbs, their action and significance	Imperfect verbs, their work and significance	Smart Board	Tests, Attendance Students and their participation, repor
٦	2	Know the already similar characters, their action and significance.	Already suspicious characters	Smart Board	Tests, Attendance Students and their participation, repor
٧	2	Knowing the name of the actor and his work	The name of the actor and his work	Smart Board	Tests, Attendance Students and their participation, repor
٨	2	Know the name of the object ar its action	Object name and action	Smart Board	Tests, Attendance Students and their participation, repor
٩	2	Knowing the Five Verbs and distinguish it from other	The Five Verbs	Smart Board	Tests, Attendance Students and their

		verbs			participation, repor
١٠	2	Know the mechanism of Deuteronomy	Muthanna	Smart Board	Tests, Attendance Students and their participation, repor
١١	2	Knowledge of the collection of Salem of both types	The plural of the masculine Salem and the feminine Salem	Smart Board	Tests, Attendance Students and their participation, repor
١٢	2	Familiarity with the rules of number	Number	Smart Board	Tests, Attendance Students and their participation, repor
١٣	2	Know the rules of writing hamz	Hamza and ways to write it	Smart Board	Tests, Attendance Students and their participation, repor
١٤		Course Development Plan	Access to modern books in languag sciences		

12. 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	
13. Learning and Teaching Resources	
Required textbooks (Methodology, if any)	General Arabic Book: A Group of Authors
Main references (Sources)	The Arabic Lessons Collector, Mustafa Ghalayini Academy of Language and Literature, Magdy Wah and others Meanings of grammar, Fadel Al-Samarrai
Recommended supporting books and references (Scientific journals, reports…)	Arabic grammar and literature books
Electronic references, Websites	Noor Library to download free books

جامعة البيان

Course Description (20)

1. Course Title	**Democracy and human rights**
2. Course Code	**402105**
3. Semester/Year	**First semester 2024-2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Official time**
6. No. of Hours (Total)	**30 hrs**
7. No. of Credits (Total)	**1**
8. Course Administrator Name	**Asist. Lect. Zainab Mohammed**
9. E-mail	

10. Course Objectives

Knowledge	**A1**	Human rights and public freedoms
	A2	The historical development of the concept of human rights
	A3	Knowledge of human rights protection mechanisms.
	A4	Universal Declaration of Human Rights.
Skills	**B1**	Thinking and using problem-solving techniques
	B2	Many questions
	B3	
	B4	
Values	**C1**	Educating students on professional humanitarian work
	C2	Promoting and consolidating professional and ethical values among students practicing the professio pharmacist
	C3	Enhancing the spirit of cooperation and teamwork upon request
	C4	Training students to respect the freedom of thought, expression, and creativity of others

11. Teaching and Learning Strategies

1.	Discussing group work	**4.**	Field visits to relevant ministries and educational institutions
2.	Writing self-reports	**5.**	Holding seminars, courses and workshops for students that encourage spiritual values
3.	Using a strategy of cooperation and assistance during the education process	**6.**	

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	1	Teaching the student the concept of hu rights	The concept of human rights	theoretical	Dialogue questions and discussion
2	1	Teaching students human rights in anc civilizations	Human rights in ancient civilizat (Mesopotamia, the Nile Valley, G civilization)	theoretical	Dialogue questions and discussion
3	1	Informing the student about the intellec contribution of the Greeks (Plato Aristotle).	The intellectual contribution of the Gr (Plato and Aristotle).	theoretical	Dialogue questions and discussion
4	1	The student's knowledge of the idea human rights in divine laws.	The idea of human rights in heavenly laws.	theoretical	Dialogue questions and discussion
5	1	Teaching the student the types of rights	Types of rights	theoretical	Assigning the student to do rel research
6	1	Teaching students basic freedon	Basic freedoms.	theoretical	With the topic.
7	1	Educating students about intellectual ri and freedoms	Intellectual rights and freedoms.	theoretical	Dialogue questions and discussion
8			Mid-term exam		Dialogue questions and discussion
9			Mid-term exam		Tests
10	1	Teaching students about political rights	Political rights	theoretical	Tests
11	1	Educating students about economic social freedoms	Economic and social freedoms	theoretical	Assigning the student to do rel research
12	1	Teaching students about the Unive Declaration of Human Rights	Universal Declaration of Human Rights.	theoretical	With the topic
13	1	Teaching the student according to the cha	Arab Charter on Human Rights.	theoretical	Dialogue questions and discussion
14	1	Arab League for Human Rights	Human rights in regional agreements	theoretical	Dialogue questions and discussion
15-16	1	Teaching the student about rights	Final semester exam	theoretical	Dialogue questions and discussion

13. Course Evaluation	
Distributingthescoreoutof100accordingtothetasksassignedtothestudents uchasdailypreparation,daily,oral,monthly,writtenexams,reports.... etc	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	The human rights of first stage students are binding
Main References (sources)	Human rights lectures taught at the College of Political Science/University of Baghdad.
Recommended Books & References (Scientific Journals, Reports …)	Modern scientific research in the field of human rights and freedoms
Websites or Electronic References	Human rights organization, UNICEF

جامعة البيان

Course Description (1)

1. Course Title	**Democracy and human rights**
2. Course Code	**401108**
3. Semester/Year	**First semester 2024-2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Official time**
6. No. of Hours (Total)	**30 hrs**
7. No. of Credits (Total)	
8. Course Administrator Name	Asist. Lect. Zainab Mohammed
9. E-mail	

10. Course Objectives

Knowledge	**A1**	Human rights and public freedoms
	A2	The historical development of the concept of human rights
	A3	Knowledge of human rights protection mechanisms.
	A4	Universal Declaration of Human Rights.
Skills	**B1**	Thinking and using problem-solving techniques
	B2	Many questions
	B3	
	B4	
Values	**C1**	Educating students on professional humanitarian work
	C2	Promoting and consolidating professional and ethical values among students practicing the professio pharmacist
	C3	Enhancing the spirit of cooperation and teamwork upon request
	C4	Training students to respect the freedom of thought, expression, and creativity of others

11. Teaching and Learning Strategies

1.	Discussing group work	**4.**	Field visits to relevant ministries and educational institutions
2.	Writing self-reports	**5.**	Holding seminars, courses and workshops for students that encourage spiritual values
3.	Using a strategy of cooperation and assistance during the education process	**6.**	

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1		Teaching the student the concept of hu rights	The concept of human rights	theoretical	Dialogue questions and discussion
2		Teaching students human rights in anc civilizations	Human rights in ancient civilizat (Mesopotamia, the Nile Valley, G civilization)	theoretical	Dialogue questions and discussion
3		Informing the student about the intellec contribution of the Greeks (Plato Aristotle).	The intellectual contribution of the Gr (Plato and Aristotle).	theoretical	Dialogue questions and discussion
4		The student's knowledge of the idea human rights in divine laws.	The idea of human rights in heavenly laws.	theoretical	Dialogue questions and discussion
5		Teaching the student the types of rights	Types of rights	theoretical	Assigning the student to do rel research
6		Teaching students basic freedon	Basic freedoms.	theoretical	With the topic.
7		Educating students about intellectual ri and freedoms	Intellectual rights and freedoms.	theoretical	Dialogue questions and discussion
8			Mid-term exam		Dialogue questions and discussion
9			Mid-term exam		Tests
10		Teaching students about political rights	Political rights	theoretical	Tests
11		Educating students about economic social freedoms	Economic and social freedoms	theoretical	Assigning the student to do rel research
12		Teaching students about the Unive Declaration of Human Rights	Universal Declaration of Human Rights.	theoretical	With the topic
13		Teaching the student according to the cha	Arab Charter on Human Rights.	theoretical	Dialogue questions and discussion
14		Arab League for Human Rights	Human rights in regional agreements	theoretical	Dialogue questions and discussion
15		Teaching the student about rights	Final semester exam	theoretical	Dialogue questions and discussion
16					
17					
18					

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned tothestudent such as daily preparation, daily, oral, monthly, writtenexams, reports.... etc.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	The human rights of first stage students are binding
Main References (sources)	Human rights lectures taught at the College of Political Science/University of Baghdad.
Recommended Books & References (Scientific Journals, Reports …)	Modern scientific research in the field of human rights and freedoms
Websites or Electronic References	Human rights organization, UNICEF

جامعة البيان

Course Description (8)

1. Course Name	**English Language**
2. Course Code	**401107**
3. Semester / Year	**First Semester 2023-2024**
4. The history of preparation of this description	**2024**
5. Available Attendance Forms	**Official working hours**
6. Number of Credit Hours (Total)	**2 hours per week**
7. Number of Units (Total)	**2**
8. Course administrator name	Asist Lect Hasan Thamer
Email	

9. Course Objectives

Kn led	**A1**	Develop the student's skills and knowledge of English grammar
	A2	**Educating students on professional humanitarian work**
	A3	**Help understand the principles of the English language**
	A4	
Ski	**B1**	Develop the student's speaking, writing, reading and comprehension skills in English
	B2	Developing the student's ability to dialogue, discuss and speak English
	B3	
	B4	
Val s	**C1**	**Promoting and consolidating professional and ethical values among students to practice the profession of pharmacist**
	C2	**Training students to respect the freedom of thought, expression and creativity of others**
	C3	**Develop a sense of responsibility among students during the study period and**

		during work
	C4	
10. Teaching and Learning Strategies		
1.	1- Use the strategy of cooperation and assistance education during	

جامعة البيان

11. Course Structure					
The week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	2	I, am, you, this : القواعد is… Review (test)	How to present yourself in English? Module 1: Greetings	use Scientific references and use of the board	Monthly Written Exams
2	2	How, what, where, : القواعد Review (test)	Module 2: Your World	use Scientific references and use of the board	Exams Oral
3	2	Grammar: Present Simple, Tools Definition a AND an Review (test)	Module 3: It's My Life	use Scientific references and use of the board	Daily Written Exams
4	2	Rules: Negation, Questions, Short Answers Review (Test)	Module 4: Personal Information	use Scientific references and use of the board	Oral exams
5	2	Grammar: short answers, adjectives, use of has/have Review (test)	Module 5: Family and Friends	use Scientific references and use of the board	Monthly Written Exams
6	2	Grammar: Present Simple, Tools Definition a/an Review (test)	Module 6: It's My Life	use Scientific references and use of the board	Surprise questions
7	2	Grammar: Time, Date, Present and Past Simple Review (test)	Module 7: Daily Life	use Scientific references and use of the board	Daily Written Exams
8	2	Grammar: Object Pronouns , Use of this/that , Questions	Module 8: Places where I love her/her	use Scientific references and use of	Oral exams

		Answers Review (test)		the board	
9	2	Grammar: Time, Date, Present and Past Simple Review (test)	Module 9: Everyday Life	use Scientific references and use of the board	Monthly Written Exams
10	2	Homework Subject: Numericals, Singular and Plural Review (Test)	Module 10: Business Skills , Reading & Listening (New vocabulary)	use Scientific references and use of the board	Questions Surprise
11	2	Subject:Country Names The Homework Review (Test)	Module 11: Work Skills, Reading and Listening (New vocabulary)	use Scientific references and use of the board	Monthly Written Exams
12	2	Reading and speaking:, Subject: Social Expressions , Functions Homework Review (test)	Module 12: Business Skills (New vocabulary)	Exams Oral	use Scientific references and use of the board
13	2	Reading and speaking: Study topic: talking about family and friends Homework Review (test)	Module 13: Business Skills (New vocabulary)	Daily Written Exams	use Scientific references and use of the board
14	2	Listen and speak	Module 14: Business Skills (New vocabulary)	Oral exams	use Scientific references and use of the board
15	2	Reading and Speaking: Subject: Talking about Sports and Music Homework review (test)	Module 15: Stop and Check	Monthly Written Exams	use Scientific references and use of the board

جامعة البيان

11. 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	
12. Learning and Teaching Resources	
Required textbooks (Methodology, if any)	**New Headway, Oxford (Beginner)**
Main references (Sources)	**New Headway, Oxford (Beginner)**
Recommended supporting books and references (Scientific journals, reports…)	**New Headway, Oxford (Beginner)**
Electronic references, Websites	**New Headway, Oxford (Beginner)**

جامعة البيان

Course Description (46)

1. Course Name	**English Language / Fourth Stage**
2. Course Code	**404106**
3. Semester / Year	**First Semester 2023-2024**
4. The history of preparation of this description	**2024**
5. Available Attendance Forms	**Official working hours**
6. Number of Credit Hours (Total)	**2 hours per week**
7. Number of Units (Total)	**1**
8. Course administrator name	Asist. Lect Hasan Thamer
Email	

9. Course Objectives

Kn led	**A1**	Develop the student's skills and knowledge of English grammar
	A2	**Educating students on professional humanitarian work**
	A3	**Help understand the principles of the English language**
	A4	
Ski	**B1**	Develop the student's speaking, writing, reading and comprehension skills in English
	B2	Developing the student's ability to dialogue, discuss and speak English
	B3	
	B4	
Val s	**C1**	**Promoting and consolidating professional and ethical values among students to practice the profession of pharmacist**
	C2	**Training students to respect the freedom of thought, expression and creativity of others**
	C3	**Develop a sense of responsibility among students during the study period and**

		during work
	C4	
10. Teaching and Learning Strategies		
10	Using the strategy of cooperation and assistance education during the education process	

جامعة البيان

11. Course Structure					
The week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Students acquire the basics of the English language	English grammar and writing: the system of verbs and their use in the language The tense system and English tenses usage	Smart Board	Cob, reports and homework
2	2	Students acquire the basics of the English language	Reading and listening: Practice reading and listening to pieces in English.	Smart Board	Cob, reports and homework
3	2	Students acquire the basics of the English language	English and Writing Grammar: Introduction to the Present Perfect , simple and continuous	Smart Board	Cob, reports and homework
4	2	Students acquire the basics of the English language	Grammar & Reading Narrative tenses Past Simple and Present Perfect Reading practice	Smart Board	Cob, reports and homework

5	2	Students acquire the basics of the English language	English and Writing Grammar: Question forms & Negatives	Smart Board	Cob, reports and homework
6	2	Students acquire the basics of the English language	English and Writing Grammar: Introduction to future .forms,	Smart Board	Cob, reports and homework
7	2	Students acquire the basics of the English language	English Grammar and Writing: An Introduction to Future Forms, Decisions and intentions, words commonly confused	Smart Board	Cob, reports and homework
8	2	Students acquire the basics of the English language	Rules, reading and listening: Expressing quantity Practice reading and listening to pieces in English from the curriculum.	Smart Board	Cob, reports and homework

9	2	Students acquire the basics of the English language	English and Writing Grammar: Modal auxiliary verbs of probability present and future	Smart Board	Cob, reports and homework
10	2	Students acquire the basics of the English language	rules Introduction to relative clauses.	Smart Board	Cob, reports and homework
11	2	Students acquire the basics of t English language	English and Writing Grammar: - Expressing habits -argument and brainstorm ideas Hypothesizing	Smart Board	Cob, reports and homework

جامعة البيان

11. 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	
12. Learning and Teaching Resources	
Required textbooks (Methodology, if any)	
Main references (Sources)	**New headway plus(Upper-Intermediate) by Liz and John Soars**
Recommended supporting books and references (Scientific journals, reports…)	
Electronic references, Websites	

جامعة البيان

Course Description (5)

1. Course Name	Mathematics and Biostatistics
2. Course Code	401105
3. Semester / Year	First Semester/ 2024-2025
4. The history of preparation of this description	2024
5. Available Attendance Forms	Official attendance hours
6. Number of Credit Hours (Total)	3 theoretical hours
7. Number of Units (Total)	3 units
8. Course administrator name	Assistant lecturer. Maysam Sajit Khudair
Email	Mesam.S@Albayan.edu.iq

9. Course Objectives

Kn led	**A1**	To provide students with the ability to deal with the concepts of mathematics ar statistics.
	A2	Emphasize the knowledge and skills required to perform the duties and responsibilities of the pharmacist efficiently
	A3	The course deals with the concepts of basic mathematics and the application of biostatistics in the medical field.
	A4	Upon completion of the course, the student will be able to understand the applications of statistics in the medical field.
Ski	**B1**	The skill of using mathematics in the medical field
	B2	The skill of using biostatistics in the medical field
Val s	**C1**	Understand the basics of mathematics
	C2	Understand the fundamentals of biostatistics
	C3	Understand the application of mathematics in the medical field
	C4	Understand the application of biostatistics in the medical field

10. Teaching and Learning Strategies

١.	Lectures (questions and discussion)	٤.	Homework
٢.	Interactive Electronic Whiteboard	٥.	Weekly exams
٣.	Whiteboard	٦.	

جامعة البيان

11. Course Structure					
The week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
١	3	Mathematics General Principles Includes forms. Inequality Absolute values Complications.	General principles	Smart board Electronic text Buster Reviews Lectures	Theoretical exam
٢	3	Functions and charges. Reciprocal slope functions and line equations.	Functions and slope	Smart board Electronic text Buster Reviews Lectures	Theoretical exam
٣	3	Determinant and integration. Determinant theorems. Integration conditions.	Determinants and integration	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
٤	3	Line tangent deviation derivatives. Rules of discrimination.	Derivative and functions	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
٥	3	Integration: The integration indefinite bases Indefinite integrations. Integration formulas for	The concept of integration	Smart board Electronic text Buster Reviews	Theoretical exam effectiveness Row

		trigonometric function. Basic		Lectures	
٦	3	Properties of specific integrals. Practice Exercises.	----------	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
٧	3		Exam 1	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
٨	3	Biostatistics: General Concepts Statistics, Statistical Methods Probability concepts, Probability properties.	General concept of probability statistics	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
٩	3	Probability distribution . Discrete variabl. Binomial distribution. Poisson distribution.	Poisson distribution	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
١٠	3	Continued probability distribution and distribution. Natural, Review Questions Exercises.	----------	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
١١	3	The concept of central tendency: sample mean and the average population.	Centralism	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row

١٢	3	Coefficient of variations. Standard error. Correlation analysis. (regression model and model Regression equation).	Coefficient of variations. Standard error. Correlation analysis.	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
١٣	3	Coefficient of variations. Standard error. Correlation analysis (regression model and model Regression equation).	Coefficient of variations. Standard error. Correlation analysis.	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
١٤	3	Test T Test Z Kay Anonova Test.	Statistics Tests	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
١٥	3	Application of statistics in medical field. Review questions and exercises.	Tests	Smart board Electronic text Buster Reviews Lectures	Theoretical exam effectiveness Row
			Final Exam		

12. 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	
13. Learning and Teaching Resources	
Required textbooks (Methodology, if any)	1. Finny RI, Thomas GB (Eds.); Calculus and Analytical Geometry. 2 .Daniel WW (ED.), Foundation for Analysis in the Health Science, 4th ed
Main references (Sources)	1. Finny RI, Thomas GB (Eds.); Calculus and Analytical Geometry. 2. Daniel WW (ED.), Foundation for Analysis in the Health Science, 4th ed
Recommended supporting books and references (Scientific journals, reports...)	1. Finny RI, Thomas GB (Eds.); Calculus and Analytical Geometry. 2. Daniel WW (ED.), Foundation for Analysis in the Health Science, 4th ed
Electronic references, Websites	Scientific movies

جامعة البيان

Course Description (14)

1. Course Title	**Computer science 1st Stage**
2. Course Code	**401213**
3. Semester/Year	**Second Semester/ 2024-2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Official working hours**
6. No. of Hours (Total)	**2 hours * 15 weeks**
7. No. of Credits (Total)	**1**
8. Course Administrator Name	**A. Teach. Mustafa Jamal**
9. E-mail	**mustafajamal8090@gmail.com**

10. Course Objectives: Understanding the Internet, its components, and how to search the Internet to write research and medical reports. And also learn how to create reports ready for presentation in Microsoft Office Power Point.

Knowledge	**A1**	Know the types of Internet networks and how they work.
	A2	Knowledge of devices for connecting to the Internet.
	A3	Creating and saving documents, entering, editing, and coordinating presentatio on Power Point pages.
	A4	Working on creating presentation files on the Power Point program.
Skills	**B1**	Giving a comprehensive idea about the use of the Internet and its harnessing the medical field.
	B2	Using programs to edit and display texts and tables and draw compounds a laboratory devices.
	B3	Giving a complete idea about the uses of Power Point.
	B4	View interactive diagrams to see how the display is implemented.
Values	**C1**	Requesting periodic reports regarding the material.
	C2	Interactive assessment through lecture.
	C3	Conducting examinations periodically.

	C4	Surprise practical tests.

11. Teaching and Learning Strategies			
1.	**Conduct research on the subject.**	**4.**	**Discuss group work.**
2.	**Preparing joint reports on topics related to the Internet and medical research.**	**5.**	**Use a collaborative strategy to help during the education process**
3.	**Encourage reading published blogs.**	**6.**	**Report writing is related to lecture topics.**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	Two hours	Definition of the Internet, Internet devices, and connection methods.	What is the Internet and how to connect devices to it.	smart board	Tests, reports, and daily assignments
2	Two hours	Types of Internet networks and how to search on the Internet.	The Internet and types.	smart board	Tests, reports, and daily assignments
3	Two hours	Knowledge of the principles and importance of PowerPoint.	PowerPoint and the main components of PowerPoint.	smart board	Tests, reports, and daily assignments
4	Two hours	Working with written texts.	Knowledge of entering, arranging and coordinating written texts.	smart board	Tests, reports, and daily assignments
5	Two hours	Design the presentation file.	Designing slides and arranging their contents.	smart board	Tests, reports, and daily assignments
6	Two hours	Tables.	Knowledge of entering and arranging tables.	smart board	Tests, reports, and daily assignments
7	Two hours	The pictures.	Know how to insert, arrange and format images.	smart board	Tests, reports, and daily assignments
8	Two hours	The movement.	Know how to move texts and images and switch between slides professionally.	smart board	Tests, reports, and daily assignments
9	Two	Protection.	Know how to protect file	smart board	Tests, reports, and daily

	hours		and data		assignments
10	Two hours	Communicating information.	Knowing how to format the file and how to present and communicate information in an interesting and practical way.	smart board	Tests, reports, and daily assignments
11	Two hours	Print the file.	Know how to print file contents and their types.	smart board	Tests, reports, and daily assignments
12	Two hours	Share file.	Know how to share the file with others professionally and work collaboratively.	smart board	Tests, reports, and daily assignments
13	Two hours	Presentation.	Groups of students deliver a lecture using PowerPoint.	smart board	Tests, reports, and daily assignments

13. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the studentsuch as daily preparation, daily, oral, monthly, written exams, reports .... etc .	
14. Learning & Teaching Resources	
Required textbooks. (curricular if any)	https://kayaconnect.org/course/info.php?id=3050&lang=ar&gad_source=1&gclid=Cj0KCQjwzZmwBhD8ARIsAH4v1gVSUTwES8XTn4g-xQhiJdazzZcGp7e3UydHskummgTz1PLBYSHEjBgaAr57EALw_wcB
Main References (sources)	- https://mehnawy.com/blog/what-is-powerpoint - I. Wigmore, "Computer Network," 2014. https://whatis.techtarget.com/definition/access-network.
Recommended Books & References (Scientific Journals, Reports …)	Vivekkothari, "Network Access." https://www.geeksforgeeks.org/access-networks/.
Websites or Electronic References	C. G. Bell, A. N. Habermann, J. McCredie, R. Rutledge, and W. Wulf, *Computer networks*, vol. 3, no. 5. 2011.

جامعة البيان

Course Description (6)

1. Course Title	**Computer science 1st Stage**
2. Course Code	**401106**
3. Semester/Year	**First Semester/ 2024-2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Official working hours**
6. No. of Hours (Total)	**2 hours * 15 weeks**
7. No. of Credits (Total)	**1**
8. Course Administrator Name	**A. Teach. Mustafa Jamal**
9. E-mail	**mustafajamal8090@gmail.com**

10. Course Objectives : Understand computer science principles and terminology used in daily life. View and learn the basics of computer systems components and parts and their relationship to medicine and medical applications, in addition to the Microsoft Office Word program.

Knowledge	**A1**	Knowledge of common computer types and systems.
	A2	Knowledge of the main parts of computer hardware.
	A3	Create and save documents. Enter, edit, and format paragraphs on pages.
	A4	Work with tables, charts and graphical documents.
Skills	**B1**	Giving a comprehensive idea about the use of computers and harnessing them the medical field.
	B2	Using programs to edit texts, tables, and draw compounds.
	B3	Give a complete idea about the uses of Office Word.
	B4	View interactive diagrams to see the implementation of tables.
Values	**C1**	Requesting periodic reports regarding the material.
	C2	Make tests periodically.
	C3	Interactive assessment through lecture.
	C4	Surprise practical tests.

11. Teaching and Learning Strategies			
1.	Conduct research on the subject.	4.	Discuss group work.
2.	Preparing joint reports on computer topics.	5.	Use a collaborative strategy to help during the education process
3.	Encourage reading published blogs.	6.	Writing self-reports.

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	Two hours	Definition of computer and computer functions	computer	smart board	Tests, reports, and daily assignments
2	Two hours	Input and output devices	Computer hardware and main components	smart board	Tests, reports, and daily assignments
3	Two hours	System software and application software	Operating Systems	smart board	Tests, reports, and daily assignments
4	Two hours	Storage units and speed units	Computer units measurement	smart board	Tests, reports, and daily assignments
5	Two hours	Types of computers in the world	Computer classifications	smart board	Tests, reports, and daily assignments
6	Two hours	Computer features (speed, memory, etc.)	Computer properties	smart board	Tests, reports, and daily assignments
7	Two hours	Types of viruses and how to protect against them	Computer viruses	smart board	Tests, reports, and daily assignments
8	Two hours	Open Word and Use the Start Screen Understanding Office and the Cloud Explore the Word Window Sign In to Your Account Work with Backstage View Change the Color Scheme and ackground Locate Commands on the Ribbon	Getting Started with Microsoft Wo &Creating and Saving Documents	smart board	Tests, reports, and daily assignments

		Give Commands Using the Keyboard and Mouse ing Word on Tablets and Phones Using Word in OneDrive and Microsoft Teams Work with the Mini Toolbar and Context Menus Enter Text in a Document Move the Insertion Point Aroun Document Switch Document Vie Understanding Document Vie Work with the Navigation Pa Using Focus Mod Using Immers Reader& Start a New Docume Save a Document to Y Computer, Save a Document to Cloud Recover an Unsav Document Save a Document i Different Format, Save Docum in PDF or XPS Format, Set Opti for Saving Documents, Open Word Document Open a Docum That Uses a Different Format Op a Document from the Cloud Swi Between Open Documents			
9	Two hours	Insert and Add Text, Insert ,Symbols and Special Characters Create a Hyperlink Delete Tex Insert Blank Lines, Undo, Re and Repeat, Changes, Sel TextMark and Find Your Place w Bookmarks, Move or Copy Te Share Text Between Docume	Entering Text into Document & Edit and Proofing Text	smart board	Tests, reports, and daily assignments

		Move or Copy Several Selecti Work in Read Mode View Zoom or Out Translate Text Set Opti for Additional Actions Us Additiona Actions Search for T Replace Text or Other Items Co Words in a Docum Automatically Correct Mista Automatically Insert Frequer Used Text Check Spelling a Grammar Find Synony Antonyms, and Definitions			
10	Two hours	Understanding How Word's rmatting Works Change the Font Change the Font Size Emphasize Information with Bold, Italic, or nderline Create Superscripts and Subscripts Change Text Case Change Text Color Apply T Effects Apply a Font Style Apply Highlighting to Text ,Ap Strikethrough to Text Copy a Paste Text Formatting Remo Text Formatting Set the Defa Font for All New Docume ,Change Text Alignment Set L Spacing Within a Paragraph Line Spacing Between Paragrap Create a Bulleted or Number List Display Formatting Ma Hide or Display the Ruler Ind Paragraphs Set and Use Tabs Ad Paragraph Border Review a	Formatting Text & Formatt Paragraphs	smart board	Tests, reports, and daily assignments

		Change Formatting Comp Formatting Apply Formatt Using Styles Switch Styles Sa Formatting in a Style Expand Collapse Document Content Moc a Style Add Paragraph Shading			
11	Two hours	djust Margins Insert and Manage ge Breaks Control Text Flow and gination Align Text Vertically on ne Page Change Page Orientation Insert a Section Break Add Page Numbers to a ocument Add Line Numbers to a Document Using the Building Blocks Organizer Add a Header Footer Vary Headers or Foot Within a Document Add a Footn Add an Endnote Find, Edit, Delete Footnotes or Endno Convert Footnotes to Endnotes Vice Versa Generate a Table Contents Add a Watermark Ad Page Border Apply Docum Themes and Style Sets Cre Newspaper-Style Columns Tra the Changes to a Document Lo and Unlock Tracking Revi Tracked Changes Collaborate Real Time on a Document Comp Two Versions of a Docum Combine Changes into a Sin Document Work with Comme Work with Protected Docume	Formatting Pages & Reviewing a Finalizing Documents	smart board	Tests, reports, and daily assignments

		Inspect a Document Before Shar It Mark a Document as Final Cre a Master Document Work in Master Document			
12	Two hours	Create a Table Change the Row Height or Column Width Resize a able Add or Delete a Row Add or Delete a Column Set Cell Margins Add Space Between Cells Merge o or More Cells into a Single Cell Split One Cell into Two or More ells Split a Table into Two Add a Formula to a Table Align Text in ells Add Shading to Cells Change ll Borders Format a Table Using a Table Style Add a Chart Add Decorative Text Using WordArt Insert an Online Picture Insert a Video d a Screenshot Add a Shape Add a Text Box Move or Resize a Graphic Understanding Graph Modification Techniq Understanding Text Wrapping a Graphics Wrap Text Around Graphic Work with Diagrams	Working with Tables and Cha &Working with Graphics	smart board	Tests, reports, and daily assignments
13	Two hours	Control the Display of Formatting Marks Customize the Status Bar Hide or Display Ribbon Buttons Create Your Own Ribbon Group Create Your Own Ribbon Tab Customize the Quick Access Toolbar Create	Customizing Word & Printing, Shar and Mail Merge	smart board	Tests, reports, and daily assignments

		Custom Keyboard Shortcuts & Preview and Print a Document Print on Different Paper Sizes Print an Envelope Share a W Document on OneDrive Email Document as an Attachment Cre Letters to Mass Mail Create Lab for a Mass Mailing			

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13. Course Evaluation	
Distributingthescoreoutof100accordingtothetasksassignedtothestudents uchasdailypreparation,daily,oral,monthly,writtenexams,reports .... etc .	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Vermaat, Misty E. Microsoft Office 2013 Introductory. Cengage Learning, p.IT3. 2014
Main References (sources)	http://www.tutorialspoint.com/computer_fundamentals/computer_quick_guide.htm
Recommended Books & References (Scientific Journals, Reports …)	itservices-help@ualr.edu
Websites or Electronic References	http://en.wikipedia.org/wiki/Computer_hardware

جامعة البيان

Course Description (21)

1. Course Title	**Computer science 2ed Stage**
2. Course Code	**402106**
3. Semester/Year	**First Semester/ 2024-2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Official working hours**
6. No. of Hours (Total)	**2 hours * 15 week**
7. No. of Credits (Total)	**1**
8. Course Administrator Name	**A. Teach. Mustafa Jamal**
9. E-mail	**mustafajamal8090@gmail.com**

10. Course Objectives: Giving the student information about the importance of using Excel and how to use it in analyzing mathematical matters related to medical calculations, to help in solving complex mathematical matters.

Knowledge	**A1**	Know how to use Excel program.
	A2	Knowledge of the main parts of Excel program.
	A3	Create and save documents. Enter, edit, and format paragraphs on pages.
	A4	Work with tables, charts and graphical documents.
Skills	**B1**	Giving a comprehensive idea about the Excel program and its use in the medical field.
	B2	Using programs to edit texts, tables, drawing compounds, and laboratory calculations.
	B3	Give a complete idea about the uses of Excel program.
	B4	View interactive diagrams to see the implementation of Excel features.
Values	**C1**	Requesting periodic reports regarding the material.
	C2	Conduct tests periodically.
	C3	Interactive assessment through lecture.
	C4	Surprise practical tests.

11. Teaching and Learning Strategies			
1.	Conduct research on the subject.	4.	Discuss group work.
2.	Preparing joint reports on Excel topics.	5.	Use a collaborative strategy to help during the education process
3.	Encourage reading published blogs.	6.	Writing self-reports.

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	Two hours	The Excel environment: Navigating a worksheet, Spreadsheet terminology, Getting help.	What is Excel?	smart board	Tests, reports, and daily assignments
2	Two hours	Enter data into a spreadsheet: Entering and editing text and values, Cell comments.	Entry operations in Excel.	smart board	Tests, reports, and daily assignments
3	Two hours	Format a worksheet: Moving and copying data, Text formatting Row and column formatting, Number formatting, Conditional formatting, Additional formatting options.	Arrange the papers.	smart board	Tests, reports, and daily assignments
4	Two hours	Saving and updating workbooks.	Save data and papers.	smart board	Tests, reports, and daily assignments
5	Two hours	Enter a formula: Entering and editing formulas, Moving and copying formulas.	Edit formulas in Excel.	smart board	Tests, reports, and daily assignments
6	Two	Enter a function: Entering	Entering jobs and functions	smart board	Tests, reports, and daily

	hours	functions, AutoSum, Other common functions.	in Excel.		assignments
7	Two hours	Create and use named ranges: Inserting and deleting ranges, rows, and columns.	Ranges.	smart board	Tests, reports, and daily assignments
8	Two hours	Create a simple chart: Chart basics, Pie Chart, Bar Chart, Modify data.	Drawing basics.	smart board	Tests, reports, and daily assignments
9	Two hours	Format Charts: Resize charts, Add and modify chart elements, apply chart layouts and styles, Move charts to a chart sheet.	Formatting charts.	smart board	Tests, reports, and daily assignments
10	Two hours	Insert a new worksheet and modifying existing worksheet.	Insert and edit papers.	smart board	Tests, reports, and daily assignments
11	Two hours	Insert rows and columns into a worksheet.	How to insert rows and columns.	smart board	Tests, reports, and daily assignments
12	Two hours	Sort and filter data: Use conditional filters, create custom conditional formatting rules, Create conditional formatting rules that use formulas, Manage conditional formatting rules.	How to sort data.	smart board	Tests, reports, and daily assignments

13	Two hours	Create an Excel table: Create an Excel table from a cell range, convert a table to a cell range, Add or remove table rows and columns.	Tables and their ranges change.	smart board	Tests, reports, and daily assignments
14	Two hours	Printing: Preparing to print, Page Setup options, Printing worksheets.	Preparation and printing.	smart board	Tests, reports, and daily assignments

13. Course Evaluation	
Distributingthescoreoutof100accordingtothetasksassignedtothestudents uchasdailypreparation,daily,oral,monthly,writtenexams,reports .... etc	
14. Learning & Teaching Resources	
Required textbooks. (curricular if any)	**Jelen, B., Juhasz, S. (2015). MrExcel XL: The 40 Greatest Excel Tips of All Time. United States: Holy Macro! Books.**
Main References (sources)	**Walkenbach, J. (2015). Excel 2016 Bible. United Kingdom: Wiley.**
Recommended Books & References (Scientific Journals, Reports …)	**Quirk, T. J., Palmer-Schuyler, J. (2020). Excel 2019 for Human Resource Management Statistics: A Guide to Solving Practical Problems. Germany: Springer International Publishing.**
Websites or Electronic References	**Quirk, T. J., Palmer-Schuyler, J. (2020). Excel 2019 for Human Resource Management Statistics: A Guide to Solving Practical Problems. Germany: Springer International Publishing.**

جامعة البيان

Course Description (28)

1. Course Title	**Computer science 2ed Stage**
2. Course Code	**402213**
3. Semester/Year	**Second Semester/ 2024-2025**
4. Description Preparation Date	**2024**
5. Available Attendance Form	**Official working hours**
6. No. of Hours (Total)	**2 hours * 15**
7. No. of Credits (Total)	**1**
8. Course Administrator Name	**A. Teach. Mustafa Jamal**
9. E-mail	**mustafajamal8090@gmail.com**

10. Course Objectives: Giving the student information about the importance of using Excel and how to use it to analyze mathematical matters and add functions, in addition to the basics of SPSS and how to solve matters related to complex medical calculations.

Knowledge	**A1**	Know how to insert functions into Excel.
	A2	Knowledge of the main parts of SPSS.
	A3	Creating and saving documents. Entering, editing and formatting paragraphs SPSS.
	A4	Working with numbers, numbers, and arithmetic analyzes in the food progr and SPSS.
Skills	**B1**	Giving a comprehensive idea about Excel and SPSS and harnessing them in the medical field.
	B2	Using programs to edit texts, tables, drawing compounds, and laboratory calculations.
	B3	Giving a complete idea about the uses of Excel and how to include functions.
	B4	View diagrams to see the implementation of SPSS features.
Values	**C1**	Requesting periodic reports regarding the material.
	C2	Conduct tests periodically.

	C3	Interactive assessment through lecture.
	C4	Surprise practical tests.

11. Teaching and Learning Strategies			
1.	Conduct research on the subject.	4.	Discuss group work.
2.	Preparing joint reports on Excel topics.	5.	Use a collaborative strategy to help during the education process
3.	Encourage reading published blogs.	6.	Writing self-reports.

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	Two hours	Possibility of searching for missing values in tables	Use the VLOOKUP function	smart board	Tests, reports, and daily assignments
2	Two hours	Possibility of calculating values according to certain criteria	Use the COUNTIF function	smart board	Tests, reports, and daily assignments
3	Two hours	Create tables and use their features such as filters, alphabetical order, etc	Tables and filters	smart board	Tests, reports, and daily assignments
4	Two hours	Make a hyperlink in the same sheet and to other sheets	Hyperlink	smart board	Tests, reports, and daily assignments
5	Two hours	How to make a drop-down list	Drop down menus	smart board	Tests, reports, and daily assignments
6	Two hours	The ability to round numbers according to certain criteria	Use rounding functions	smart board	Tests, reports, and daily assignments
7	Two hours	The ability to convert letters from lowercase to uppercase and vice versa	Transfer functions	smart board	Tests, reports, and daily assignments
8	Two hours	Clean entries in pages.	Input and data cleaning	smart board	Tests, reports, and daily assignments
9	Two hours	Knowledge of statistical tests and variance	Statistical tests, T-test, One-way ANOVA,	smart board	Tests, reports, and daily assignments

		analysis of materials.			
10	Two hours	Knowledge of the possibilities of vertical, multivariate and factor analysis.	Multivariate analysis, Factor analysis, Cluster analysis	smart board	Tests, reports, and daily assignments
11	Two hours	Know the basics of SPSS 21	Software used SPSS 21	smart board	Tests, reports, and daily assignments
12	Two hours	General description, functions and commands in SPSS	Data analysis with SPSS: general aspects, workflow, critical issues	smart board	Tests, reports, and daily assignments
13	Two hours	Knowledge of data analysis, general aspects and critical issues.	SPSS: general description, functions, menus, commands	smart board	Tests, reports, and daily assignments
14	Two hours	File management in SPSS	SPSS file management	smart board	Tests, reports, and daily assignments

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13. Course Evaluation	
Distributingthescoreoutof100accordingtothetasksassignedtothestudents uchasdailypreparation,daily,oral,monthly,writtenexams,reports .... etc.	
14. Learning & Teaching Resources	
Required textbooks. (curricular if any)	**Jelen, B., Juhasz, S. (2015). MrExcel XL: The 40 Greatest Excel Tips of All Time. United States: Holy Macro! Books.**
Main References (sources)	**Walkenbach, J. (2015). Excel 2016 Bible. United Kingdom: Wiley.**
Recommended Books & References (Scientific Journals, Reports …)	**Quirk, T. J., Palmer-Schuyler, J. (2020). Excel 2019 for Human Resource Management Statistics: A Guide to Solving Practical Problems. Germany: Springer International Publishing.**
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