

Academic Program Description Form

University Name: Gilgamesh University

Faculty/Institute: Cosmetic and Laser Technologies

Academic or Professional Program Name:

Final Certificate Name: Bachelor in Cosmetic and Laser Technologies

Academic System: Credit-hour system

File Completion Date:

Signature:  Signature: 

Head of Department Name:

Signature:

Date: 30/6/2026

Scientific Associate Name:

leh

26

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance

Department:

Date:

الأستاذ الدكتور
علي عبدالله التميمي
عميد كلية التقنيات الصحية والعلمية

جامعة
كلكامش
قسم
ضمان الجودة والإداء الجامعي

1. Program Vision

The Department of aesthetic and Laser techniques seeks to be a distinguished and leading department in aesthetic and Laser technologies by preparing qualified technical staff with the knowledge and skills to keep pace with modern developments in medical aesthetics in accordance with quality assurance and accreditation standards.

2. Program Mission

The Department of aesthetic and Laser techniques provides an integrated academic and practical program aimed at preparing graduates with scientific competence and practical skills in cosmetic techniques and modern laser devices, while adhering to professional and ethical values.

3. Program Objectives

The department aims to:

- Prepare technical staff in cosmetic and laser fields
- Train students on modern cosmetic and laser devices
- Enhance skincare and aesthetic treatment skills
- Integrate theoretical and practical learning
- Support innovation in medical aesthetics
- Ensure compliance with professional safety standards
- Develop students' labor market skills

4. Program Accreditation

5. Other external influences

6. Program Structure				
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements				
Department Requirements				
Summer Training				
Other				

* This can include notes whether the course is basic or optional.

7. Program Description			
Year/Level	Course Code	Course Name	Credit Hours
Level 1 / course 1	ALT11201	General chemistry	ε
	ALT11202	Biology	ε
	ALT11203	Medical physics	ε
	HMT125	Medical terminology	ε
	HMT121	Human Rights & Democracy	ε
	HMT124	Computer principles	ε
	ALT12204	Organic Chemistry	ε
	ALT12205	Anatomy and Histology	ε

Level 1 / course ٢	ALT12206	Hair and Skin Biology	٤
	ALT12207	Laser Physics	٤
	HMT122	Arabic Language	٤
Level 2 / course 1	ALT21208	Physiology	
	ALT21209	General Pathology	
	ALT21210	Laser Physics and its Medical Applications	
	HMT21211	Crimes of the Ba'ath Regime	
	ALT21212	Basics and Techniques of Skin and Cutaneous Care	
	ALT21213	Pharmacology	
	ALT22214	Nutrition 1	
Level 2 / course ٢	ALT22215	Skincare Pharmacology	
	ALT22216	Disorders of Skin, Hair, and Nails	
	ALT22217	Nutrition ٢	
	ALT22218	Systemic Pathology	
	ALT22219	Laser and Light Techniques in Non-Surgical Aesthetics	
	ALT22220	Microbiology	
	ALT22221	First Aid	
	HMT122	Arabic Language	

8. Expected learning outcomes of the program

Knowledge

Acquiring advanced scientific and clinical knowledge of laser and medical aesthetic technologies, including their safe application in diagnosing and treating dermatological conditions. This encompasses mastering device operation, parameter calibration, and comprehensive pre-, intra-, and post-procedure patient monitoring to ensure clinical safety and quality.

Skills

Apply medical aesthetic and laser techniques, operate and monitor advanced cosmetic equipment, assess patient skin types and conditions, respond to adverse reactions or emergencies, and provide safe perioperative and post-procedure patient care.

Ethics

Commitment to professional ethics, patient safety, teamwork, and professional accountability.

9. Teaching and Learning Strategies

Theoretical lectures, practical and laboratory training, clinical training in specialized clinics and centers, scientific discussions, and cosmetic case studies.

10. Evaluation methods

- a. Daily quizzes
- b. Midterm exams
- c. Weekly reports
- d. Daily attendance and participation
- e. Practical exams in hospitals
- f. Graduation research project

11. Faculty					
Faculty Members					
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff
	General	Special			Staff Lecturer
Lecturer	۳				۱ ۲
Assistant Lecturer	۳				۲ ۱

Professional Development
Mentoring new faculty members
Professional development of faculty members
B

12. Acceptance Criterion
(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program
--

1. Shared curricular resources through the twinning agreement with University.
2. The college's scientific library.
3. The Internet.
4. Scientific research and journals.
5. The official website of the Ministry of Higher Education and Scientific Research.

14. Program Development Plan

- | |
|---|
| <p>A. Updating and developing curricula in alignment with labor market requirements through the work of specialized curriculum development committees.</p> <p>B. Conducting periodic surveys for target stakeholders—including students, the community, and employers in hospitals—regarding the college's mission, goals, curricula, teaching methodologies, and evaluation methods.</p> <p>C. Engaging with the community, providing voluntary activities, and directing student research toward applied projects that address community issues.</p> |
|---|

Program Skills Outline	
------------------------	--

	Required program Learning outcomes
--	---

[illegible]

[illegible]

[illegible]

[illegible]

	ALT22215	Skincare Pharmacology	Basic	*	*	*	*	*	*	*	*	*	*	*	*
--	-----------------	------------------------------	--------------	---	---	---	---	---	---	---	---	---	---	---	---

- Please tick the boxes corresponding to the individual program learning outcomes under evaluati

Anatomy and Histology

1. Course name	Anatomy and Histology
2. Course code	ALT12205
3. Semester / Year	First Semester / First Year
4. Date this description was prepared	2025 / 2026
5. Available attendance forms	In-person
6. Number of study hours (total) / Number of units (total)	60 Hours / 3 Units (2 Theoretical + 1 Practical)
7. Name of the course administrator	Dr.Dhifaf Mohsin Shallal

8. Course Objectives
General Goal: To provide students with fundamental anatomical and histological knowledge of the human body, connecting it to medical and laboratory applications in health technology fields. Specific Objectives: 1. Identify anatomical terminology, body cavities and their organs. 2. Understand the superficial anatomy of the human body and the four tissue types and their characteristics. 3. Study skin anatomy, its functions, and the mechanisms of skin color. 4. Identify the skeletal system: skull, neck, vertebral column, and limbs. 5. Understand the muscular system: diaphragm, abdominal wall muscles, and intercostal muscles. 6. Study the anatomy of the heart, blood vessels (arteries, veins, capillaries) and the lymphatic system. 7. Understand the anatomy of the upper and lower respiratory systems, lungs and pleura. 8. Acquire practical skills in microscopic examination of histological slides and anatomical drawing.

9. Teaching and Learning Strategies

1. Theoretical lectures using PowerPoint with illustrative anatomical images.
2. Practical laboratory sessions including microscopic examination of histological slides.
3. Anatomical drawing and labeling of body parts on anatomical models.
4. Small group discussions to solve clinical anatomy problems.
5. Regular short quizzes to verify comprehension.
6. Viewing virtual dissection and anatomy video tutorials.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit / Topic Name	Learning Method	Evaluation Method
1	2	Identify anatomical terminology and body cavities Lab: Anatomical terms	Theory: Introduction, anatomical terms, body cavities and their organs Lab: Anatomical terms	Lecture / PowerPoint + Lab	Quiz
2	2	Understand superficial anatomy and types of body tissues Lab: Cell and tissues	Theory: Superficial anatomy of the human body; body tissues – types and characteristics Lab: Cell and tissues	Lecture + Lab	Oral exam
3	2	Understand skin anatomy, functions, and skin color Lab: Skin histological slides	Theory: Skin anatomy and functions; skin color (melanin, keratin, factors) Lab: Skin – microscopic examination	Lecture + Lab	Written test
4	2	Identify bone types, joints, and the skull Lab: Bones – types and joints	Theory: General skeletal structure; skull and neck anatomy Lab: Bones – types and joints	Lecture + Lab	Quiz

5	2	Understand vertebral column structure, numbers and function Lab: Skull and vertebral column	Theory: Vertebral column – structure, numbers, functions Lab: Skeletal system – skull and vertebral column	Lecture + Lab	Oral exam
6	2	Identify peripheral skeletal system and limb bones Lab: Peripheral skeletal system	Theory: Upper and lower limbs – bones and joints Lab: Peripheral skeletal system	Lecture + Lab	Written test
7	2	Understand diaphragm and abdominal wall muscles Lab: Muscular system – abdominal wall and diaphragm	Theory: Diaphragm and abdominal wall muscles – structure and function Lab: Muscular system – abdominal wall and diaphragm	Lecture + Lab	Quiz
8	2	Identify intercostal and skeletal muscles Lab: Intercostal and skeletal muscles	Theory: Intercostal muscles; types of skeletal muscles Lab: Intercostal muscles and skeletal muscles	Lecture + Lab	Oral exam
9	2	Understand heart anatomy – wall, valves, and function Lab: Heart and great vessels	Theory: Anatomy of the heart – wall layers, valves, function Lab: Heart and great vessels	Lecture + Lab	Written test
10	2	Identify blood vessel wall structure (arteries) Lab: Circulatory system – arteries	Theory: Structure of blood vessel walls – arteries: types and classification Lab: Circulatory system – arteries	Lecture + Lab	Quiz
11	2	Understand veins, capillaries and lymphatic system Lab: Circulatory system – veins	Theory: Veins and capillaries; lymphatic system – lymph glands Lab: Circulatory system – veins	Lecture + Lab	Oral exam

12	2	Identify the lymphatic system in detail Lab: Lymphatic system and lymph glands	Theory: Lymphatic system – lymph glands, spleen, thymus Lab: Lymphatic system and lymph glands	Lecture + Lab	Written test
13	2	Understand upper respiratory tract anatomy Lab: Upper respiratory tract	Theory: Upper respiratory system – nose, pharynx, larynx Lab: Respiratory system – upper respiratory tract	Lecture + Lab	Quiz
14	2	Understand lower respiratory tract anatomy Lab: Lower respiratory tract	Theory: Lower respiratory system – trachea, bronchi, bronchioles Lab: Respiratory system – lower respiratory tract	Lecture + Lab	Oral exam
15	2	Understand alveoli, lungs, pleural cavity and functions Lab: Lung and pleura functions	Theory: Alveoli – lungs – pleural cavity; comprehensive review Lab: Lung and pleura functions	Lecture + Group discussion	Midterm exam

11. Course Evaluation

Grade distribution out of 100, based on daily tasks, oral and monthly exams, and final exam:

- 10% First semester theoretical exam
- 10% First semester practical exam
- 10% Second semester theoretical exam
- 10% Second semester practical exam
- 60% Final exam (35% theoretical + 25% practical)

12. Learning and Teaching Resources

Required textbooks (methodology)	Key references (sources)
Clinical Anatomy – Mohammed Salem (Arabic) Cell and Histology – Al-Faisal (Arabic)	Gray's Anatomy for Students – Drake et al. Clinical Anatomy – Snell Human Anatomy – Martini & Tallitsch
Recommended books and references (scientific journals, reports...)	Electronic references, websites
Atlas of Human Anatomy – Frank H. Netter Specialized anatomy scientific journals	www.kenhub.com www.visible-body.com www.anatomyzone.com

Course Description Form

Anatomy and Histology

1. Course name	Anatomy and Histology
2. Course code	ALT12205
3. Semester / Year	First Semester / First Year
4. Date this description was prepared	2024 / 2025
5. Available attendance forms	In-person
6. Number of study hours (total) / Number of units (total)	60 Hours / 3 Units (2 Theoretical + 1 Practical)
7. Name of the course administrator	Dr.Dhifaf Mohsin Shallal

8. Course Objectives
General Goal: To provide students with fundamental anatomical and histological knowledge

of the human body, connecting it to medical and laboratory applications in health technology fields.

Specific Objectives:

1. Identify anatomical terminology, body cavities and their organs.
2. Understand the superficial anatomy of the human body and the four tissue types and their characteristics.
3. Study skin anatomy, its functions, and the mechanisms of skin color.
4. Identify the skeletal system: skull, neck, vertebral column, and limbs.
5. Understand the muscular system: diaphragm, abdominal wall muscles, and intercostal muscles.
6. Study the anatomy of the heart, blood vessels (arteries, veins, capillaries) and the lymphatic system.
7. Understand the anatomy of the upper and lower respiratory systems, lungs and pleura.
8. Acquire practical skills in microscopic examination of histological slides and anatomical drawing.

9. Teaching and Learning Strategies

1. Theoretical lectures using PowerPoint with illustrative anatomical images.
2. Practical laboratory sessions including microscopic examination of histological slides.
3. Anatomical drawing and labeling of body parts on anatomical models.
4. Small group discussions to solve clinical anatomy problems.
5. Regular short quizzes to verify comprehension.
6. Viewing virtual dissection and anatomy video tutorials.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit / Topic Name	Learning Method	Evaluation Method
1	2	Identify anatomical terminology and	Theory: Introduction, anatomical terms, body cavities and their organs	Lecture / PowerPoint +	Quiz

		body cavities Lab: Anatomical terms	Lab: Anatomical terms	Lab	
2	2	Understand superficial anatomy and types of body tissues Lab: Cell and tissues	Theory: Superficial anatomy of the human body; body tissues – types and characteristics Lab: Cell and tissues	Lecture + Lab	Oral exam
3	2	Understand skin anatomy, functions, and skin color Lab: Skin histological slides	Theory: Skin anatomy and functions; skin color (melanin, keratin, factors) Lab: Skin – microscopic examination	Lecture + Lab	Written test
4	2	Identify bone types, joints, and the skull Lab: Bones – types and joints	Theory: General skeletal structure; skull and neck anatomy Lab: Bones – types and joints	Lecture + Lab	Quiz
5	2	Understand vertebral column structure, numbers and function Lab: Skull and vertebral column	Theory: Vertebral column – structure, numbers, functions Lab: Skeletal system – skull and vertebral column	Lecture + Lab	Oral exam
6	2	Identify peripheral skeletal system and limb bones Lab: Peripheral skeletal system	Theory: Upper and lower limbs – bones and joints Lab: Peripheral skeletal system	Lecture + Lab	Written test
7	2	Understand diaphragm and abdominal wall muscles Lab: Muscular system – abdominal wall	Theory: Diaphragm and abdominal wall muscles – structure and function Lab: Muscular system – abdominal wall and diaphragm	Lecture + Lab	Quiz

		and diaphragm			
8	2	Identify intercostal and skeletal muscles Lab: Intercostal and skeletal muscles	Theory: Intercostal muscles; types of skeletal muscles Lab: Intercostal muscles and skeletal muscles	Lecture + Lab	Oral exam
9	2	Understand heart anatomy – wall, valves, and function Lab: Heart and great vessels	Theory: Anatomy of the heart – wall layers, valves, function Lab: Heart and great vessels	Lecture + Lab	Written test
10	2	Identify blood vessel wall structure (arteries) Lab: Circulatory system – arteries	Theory: Structure of blood vessel walls – arteries: types and classification Lab: Circulatory system – arteries	Lecture + Lab	Quiz
11	2	Understand veins, capillaries and lymphatic system Lab: Circulatory system – veins	Theory: Veins and capillaries; lymphatic system – lymph glands Lab: Circulatory system – veins	Lecture + Lab	Oral exam
12	2	Identify the lymphatic system in detail Lab: Lymphatic system and lymph glands	Theory: Lymphatic system – lymph glands, spleen, thymus Lab: Lymphatic system and lymph glands	Lecture + Lab	Written test
13	2	Understand upper respiratory tract anatomy Lab: Upper respiratory tract	Theory: Upper respiratory system – nose, pharynx, larynx Lab: Respiratory system – upper respiratory tract	Lecture + Lab	Quiz
14	2	Understand lower respiratory	Theory: Lower respiratory system – trachea, bronchi,	Lecture + Lab	Oral exam

		tract anatomy Lab: Lower respiratory tract	bronchioles Lab: Respiratory system – lower respiratory tract		
15	2	Understand alveoli, lungs, pleural cavity and functions Lab: Lung and pleura functions	Theory: Alveoli – lungs – pleural cavity; comprehensive review Lab: Lung and pleura functions	Lecture + Group discussion	Midterm exam

11. Course Evaluation

Grade distribution out of 100, based on daily tasks, oral and monthly exams, and final exam:

- 10% First semester theoretical exam
- 10% First semester practical exam
- 10% Second semester theoretical exam
- 10% Second semester practical exam
- 60% Final exam (35% theoretical + 25% practical)

12. Learning and Teaching Resources

Required textbooks (methodology)	Key references (sources)
Clinical Anatomy – Mohammed Salem (Arabic) Cell and Histology – Al-Faisal (Arabic)	Gray's Anatomy for Students – Drake et al. Clinical Anatomy – Snell Human Anatomy – Martini & Tallitsch
Recommended books and references (scientific journals, reports...)	Electronic references, websites
Atlas of Human Anatomy – Frank H. Netter Specialized anatomy scientific journals	www.kenhub.com www.visible-body.com

	www.anatomyzone.com
--	---------------------

Course Description Form

Course name: Medical Physics

Course code: ALT11203

Semester/ year: Fall Semester 2025/2026

Date this description was prepared : 22/5/2026

Available attendance forms: In-person

Number of study hours (total) / Number of units (total): 2 hours/ 30 hours

Name of the course administrator (if more than one name is mentioned)

Signature Dr. Naseer Mahdi Hadi

Objectives Course:

Understand the basics of medical Physics (Basics of pressure, viscosity, fluid flow)

Learn key Physics related to the human body's systems

Teaching and learning strategies

Analytical decomposition strategy

Context-based learning strategy

Collaborative & technology-enhanced learning

Course structure

Assessment	Learning method	Name of unit or topic	Required learning outcomes	Weight
Exams & exams	Shared	Physics of Skeleton and pressure	Mechanics of the Skeleton and Pressure: Measure pressure on bones using skeletal models and force sensors Simulate the effect of different weights	2

			on joints Explore leverage (mechanical advantage) in limb movements through experiments with mechanical models	
ams y exams	Shared	Physics of Skeleton and pressure	Mechanics of the Skeleton and Pressure: Measure pressure on bones using skeletal models and force sensors Simulate the effect of different weights on joints Explore leverage (mechanical advantage) in limb movements through experiments with mechanical models	2
ams y exams	Shared	Energy, Work and Power of the body	Energy, Work, and Power of the Body: Measure energy expenditure during various physical activities using calorie-measuring devices Apply the concept of work by studying muscle movement with dynamometers or similar equipment Calculate muscle power output during different activities, such as running or lifting weights	2
ams y exams	Shared	Energy, Work and Power of the body	Energy, Work, and Power of the Body: Measure energy expenditure during various physical activities using calorie-measuring devices Apply the concept of work by studying muscle movement with dynamometers or similar equipment Calculate muscle power output during different activities, such as running or lifting weights	2
ams y exams	Shared	Heat and Cold in Medicine	Heat and Cold in Medicine: Apply thermotherapy and cryotherapy to specific body areas and observe their effects on blood flow using thermographic imaging Measure skin temperature using infrared thermometers under different temperature conditions Simulate the effects of temperature changes on tissues using thermodynamic simulations	2
ams y exams	Shared	Heat and Cold in Medicine	Heat and Cold in Medicine: Apply thermotherapy and cryotherapy to specific body areas and observe their effects on blood flow using thermographic imaging Measure skin temperature using infrared thermometers under different temperature conditions Simulate the effects of temperature changes on tissues using thermodynamic simulations	2
ams y exams	Shared	Thermodynamics in the Human Body (Heat Capacity, Heat Transfer):	Thermodynamics in the Human Body (Heat Capacity, Heat Transfer): Measure the specific heat and heat capacity of different biological tissues or tissue analogs Conduct experiments on heat transfer methods (conduction, convection, radiation) using models that mimic the human body Investigate cooling effects through evaporation and sweating simulation	2
ams y exams	Shared	Thermodynamics in the Human Body (Heat Capacity, Heat Transfer):	Thermodynamics in the Human Body (Heat Capacity, Heat Transfer): Measure the specific heat and heat capacity of different biological tissues or tissue analogs Conduct experiments on heat transfer methods (conduction, convection, radiation) using models that mimic the human body Investigate cooling effects	2

			through evaporation and sweating simulation	
ams y exams	Shared	Gas Laws and Respiratory System (Boyle's Law, Diffusion):	Gas Laws and Respiratory System (Boyle's Law, Diffusion): Measure the relationship between pressure and volume in simulated lungs to demonstrate Boyle's Law Perform gas diffusion experiments with oxygen and carbon dioxide to illustrate respiratory gas exchange Use partial pressure models to study gas mixing in inhaled and exhaled air	2
ams y exams	Shared	Gas Laws and Respiratory System (Boyle's Law, Diffusion):	Gas Laws and Respiratory System (Boyle's Law, Diffusion): Measure the relationship between pressure and volume in simulated lungs to demonstrate Boyle's Law Perform gas diffusion experiments with oxygen and carbon dioxide to illustrate respiratory gas exchange Use partial pressure models to study gas mixing in inhaled and exhaled air	2
ams y exams	Shared	Lung Physics and Breathing Mechanics	Lung Physics and Breathing Mechanics Analyze airflow mechanics by measuring lung volumes and capacities with spirometry Study lung compliance and airway resistance using airflow models Conduct experiments on surface tension and the role of surfactants in lung alveoli	2
ams y exams	Shared	Lung Physics and Breathing Mechanics	Lung Physics and Breathing Mechanics Analyze airflow mechanics by measuring lung volumes and capacities with spirometry Study lung compliance and airway resistance using airflow models Conduct experiments on surface tension and the role of surfactants in lung alveoli	2
ams y exams	Shared	Liquid Properties in the Body (Evaporation, Vapor Pressure, Flow):	Liquid Properties in the Body (Evaporation, Vapor Pressure, Flow): Study the effects of evaporation by measuring cooling rates in simulated sweating conditions Observe vapor pressure effects by changing temperature and pressure conditions on liquid evaporation Explore laminar and turbulent flow in liquids using fluid dynamics models relevant to blood flow in vessels and airflow in airways	2
ams y exams	Shared	Liquid Properties in the Body (Evaporation, Vapor Pressure, Flow):	Liquid Properties in the Body (Evaporation, Vapor Pressure, Flow): Study the effects of evaporation by measuring cooling rates in simulated sweating conditions Observe vapor pressure effects by changing temperature and pressure conditions on liquid evaporation Explore laminar and turbulent flow in liquids using fluid dynamics models relevant to blood flow in vessels and airflow in airways	2
ams y exams	Shared	Review and Practical Examination	Review and Practical Examination	2

Final Evaluation

Daily assessments and quizzes

Monthly examinations

Practical/laboratory evaluation

Participation and classroom activities

Final theoretical and practical exam

Learning and teaching resources

Printed scientific textbooks

Electronic and online resources

Course name: Medical terminology

Course code: HMT125

Semester/ year: Fall Semester 2025/2026

Date this description was prepared : 22/5/2026

Available attendance forms: In-person

Number of study hours (total) / Number of units (total): 2 hours/

Name of the course administrator (if more than one name is mentioned)
Ass. Lecture Reham Kasim Nasif

Objectives Course:

Understand the basics of medical terminology (roots, prefixes, suffixes)

Learn key terminology related to the human body's systems

Apply medical terms in the context of cosmetic and laser technology

:Teaching and learning strategies Analytical decomposition strategy Context-based learning strategy Collaborative & technology-enhanced learning					
Course structure					
Evaluation method	Learning method	Name of unit or topic	Required learning outcomes	watches	week
Daily exams Monthly exam	Shared	Introduction to Medical Terminology	Introduction to Medical Terminology: definition, importance, components of medical terms (root, prefix, suffix), and practical examples.	2	١
Daily exams Monthly exam	Shared	Anatomical Direction and Planes (Anatomical directions (anterior, p	Anatomical Direction and Planes: anatomical directions (anterior, posterior, superior, inferior) and anatomical planes (sagittal, coronal, transverse).	2	٢
Daily exams Monthly exam	Shared	Terminology of Skin and Dermatology	Skin and Dermatology Terminology: main layers of the skin (epidermis, dermis, hypodermis) and common terms (dermatitis, eczema, psoriasis, etc.).	2	٣
Daily exams Monthly exam	Shared	Terminology of the Muscular System	Muscular System Terminology: types and functions of muscle and key terms (myofibrils, sarcomere, etc.).	2	٤
Daily exams Monthly exam	Shared	Terminology of the Skeletal System	Skeletal System Terminology: main components of the skeletal system and key terms (osteon, cartilage, etc.).	2	٥
Daily exams Monthly exam	Shared	Nervous System Terminology	Nervous System Terminology: major parts and functions of the nervous system and key terms (neuron, synapse, etc.).	2	٦
Daily exams Monthly exam	Shared	cardiovascular System Terminology	Cardiovascular System Terminology: heart and blood vessels overview and key terms (cardiac output, blood pressure, etc.).	2	٧

Daily exams Monthly exam	Shared	respiratory System Terminology	Respiratory System Terminology: key organs of the respiratory system and common terms (pulmo-, broncho-, tracheo-).	2	٨
Daily exams Monthly exam	Shared	digestive System Terminology	Digestive System Terminology: major organs of the digestive system and key terms (gastro-, entero-, hep-).	2	٩
Daily exams Monthly exam	Shared	urinary System Terminology	Urinary System Terminology: main organs and functions of the urinary system and key terms (nephro-, cysto-, uro-).	2	١٠
Daily exams Monthly exam	Shared	reproductive System Terminology	Reproductive System Terminology: male and female reproductive systems and common terms (gyneco-, andro-, utero-).	2	١١
Daily exams Monthly exam	Shared	lymphatic and Immune Systems Terminology	Lymphatic and Immune Systems Terminology: functions of the lymphatic system and immune-related terms (lymph-, immun-).	2	١٢
Daily exams Monthly exam	Shared	Dermatology and Cosmetic Terminology	Dermatology and Cosmetic Terminology: cosmetic and skin care terminology including laser-related terms and aesthetic applications	2	١٣
Daily exams Monthly exam	Shared	Nervous system	Dermatology and Cosmetic Terminology related to cosmetic and skin care applications Examples of laser-related terms	2	١٤
Daily exams Monthly exam	Shared	medical record activities	medical record activities including writing diagnostic reports	2	١٥
Course Evaluation • Daily assessments and quizzes • Monthly examinations • Practical/laboratory evaluation					

- Participation and classroom activities
- Final theoretical and practical exam

Learning and teaching resources

Approved scientific textbooks

Electronic and online resources

Course name: Laser Physics

Course code: ALT12207

Semester/ year: Fall Semester 2025/2026

This description was prepared : 22/5/2026

Available attendance forms: In-person

Number of study hours (total) / Number of units (total): 2 hours/ 30 hours

Name of the course administrator (if more than one name is mentioned)
Dr. Naseer Mahdi Hadi

Objectives Course:

Understand the basics of Laser Physics (Basic Laser theory, Laser Design, Laser Calculations)

Identify Kinds of Lasers and their properties

Application of lasers in medicine

Learning and learning strategies

Classical decomposition strategy

Text-based learning strategy

Formative & technology-enhanced learning

Structure

Method	Learning method	Name of unit or topic	Required learning outcomes
Formative exams Formative exams	Shared	Electromagnetic Radiation,	Electromagnetic Radiation in Matter. Electromagnetic Radiation in vacuum
Formative exams Formative exams	Shared	Refraction of Light Beam - Snell Law	Snell Law
Formative exams Formative exams	Shared	Properties of Laser Radiation,	Monochromaticity Directionality Coherence.
Formative exams Formative exams	Shared	Low divergence angle, brightness	Low divergence angle, brightness
Formative exams Formative exams	Shared	Lasing processes, Bohr model of the atom, Photons and the energy diagrams,	Lasing processes, Bohr model of the atom, Photons and the energy diagrams,
Formative exams Formative exams	Shared	Absorption of electromagnetic Radiation Spontaneous emission of electromagnetic Radiation,	Absorption of electromagnetic Radiation Spontaneous emission of electromagnetic Radiation,
Formative exams Formative exams	Shared	Decay Rate, Population at Thermodynamic Equilibrium Population Inversion, Stimulated Emission, Amplification	Decay Rate, Population at Thermodynamic Equilibrium Population Inversion, Stimulated Emission, Amplification
Formative exams Formative exams	Shared	Three level and Four level system	Three level and Four level system
Formative exams Formative exams	Shared	The Laser System, The laser active medium: The excitation mechanism, Collisions with atoms, Feedback Mechanism, Output Coupler	The Laser System, The laser active medium: The excitation mechanism, Collisions with atoms, Feedback Mechanism, Output Coupler
Formative exams Formative exams	Shared	Operation of a Laser System -	Interactive Applets: Laser Gain Fluorescence line shape of the laser Fluorescence Linewidth,
Formative exams Formative exams	Shared	Laser Gain Curve Broadening the Fluorescence line, Loop Gain, Calculating Loop Gain (GL) Without Losses, Calculating Loop Gain (GL) With Losses,	Laser Gain Curve Broadening the Fluorescence line Loop Gain, Calculating Loop Gain (GL) Without Losses, Calculating Loop Gain (GL) With Losses,
Formative exams Formative exams	Shared	Calculating Gain Threshold (GL)th, Saturation Gain in Continuous Wave Laser, Pulsed Laser	Calculating Gain Threshold (GL)th, Saturation Gain in a Continuous Wave Laser, Pulsed Laser
Formative exams Formative exams	Shared	Different Laser Types and their Characteristics, Gas Laser Excitation of a gas laser, Groups of Gas Lasers, Controlling the laser radiation properties, Some Common Laser Resonators. Selective coating on the cavity mirrors	Different Laser Types and their Characteristics, Gas Lasers, Excitation of a gas laser, Groups of Gas Lasers Controlling the laser radiation properties, Some Common Laser Resonators. Selective coating on the cavity mirrors
Formative exams Formative exams	Shared	Controlling the laser radiation properties, Some Common Laser Resonators. Selective coating on the cavity mirrors	Controlling the laser radiation properties, Some Common Laser Resonators. Selective coating on the cavity mirrors
Formative exams	Shared	The second course exam	The second course exam

ly exams			
----------	--	--	--

Evaluation
ly assessments and quizzes
nthly examinations
actical/laboratory evaluation
rticipation and classroom activities
al theoretical and practical exam

g and teaching resources	
cientific textbooks	
nd online resources	

Course name
General chemistry
Course code
ANT11204
semester/ year
one semester, with an average of 15 lectures.
Date this description was prepared
٢٠٢٦/2/28
Available attendance forms
My presence only
Number of study hours (total) / Number of units (total)
Number of units=3
Name of the course administrator (if more than one name is mentioned)
Name: Mohammed Ahmed Abd Mohammed.ahmed@gu.edu.iq
objectives Course
understand the fundamental principles of atomic structure and chemical bonding.

Explain periodic trends using the Periodic Table.

Perform stoichiometric calculations and balance chemical equations.

Apply gas laws and explain states of matter.

Calculate solution concentrations (molarity, molality, normality).

Analyze acids and bases, calculate pH, and interpret titration results.

Apply thermochemistry principles to chemical reactions.

Develop safe laboratory skills and accurate experimental techniques.

Teaching and learning strategies

Teaching Strategies

Interactive Lectures

Concept-focused lectures with real-life applications (health, environment, industry).

Problem-Based Learning (PBL)

Solving numerical problems (stoichiometry, gas laws, pH).

Think-Pair-Share Activities

Short conceptual questions during class.

Multimedia Demonstrations

Animations to explain atomic structure, bonding, and reaction mechanisms.

Flipped Classroom (Selected Topics)

Students review videos before class; in-class time for problem solving.

Course structure

Evaluation method	Learning method	Name of unit or topic	Required learning outcomes	watches	week
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Introduction to analytical chemistry (matter structure of atom, periodic table, bonds)	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	1

Monthly and quarterly exams and quizzes	Integrated in-person lecture	Methods of analysis Solution (preparation standard solution and concentration, percent formal. Sol.	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	2
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Molar solution, Normal solution	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	3
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Statistical treatment of analytical data (accuracy) Mean value, deviation standard deviation mean value systematic error relative error, random absolute error	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	4
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Chemical reaction equilibrium constant reaction rate, catalysis solubility, ionization	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	5
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Neutralization (acid base theory, pH,	Describe properties of solids, liquids,	2	6

and quizzes		Buffers end point) Oxidation Equilibria	and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.		
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Precipitation methods (gravimetry) formation ppt. , type of ppt. agent titration , calculations	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	7
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Spectroscopy (Optical spectroscopy Beer's law)	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	8
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Structure of carbon compounds (alkanes alkenes , alkynes , halogen compound)	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	9
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Alcohols , classification properties reaction	Describe properties of solids, liquids, and gases. Apply gas laws	2	10

			(Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.		
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Aldehydes and ketone properties reaction	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	11
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Aldehydes and ketone properties reaction	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	12
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Carboxyl acid, amines Aromatic, Hydrocarbons	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	13
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Carboxyl acid, amines Aromatic, Hydrocarbons	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law).	2	14

			Gas Law). Explain phase changes and phase diagrams.		
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Nitro compound, sulphuric acids, Phenols, aromatic carboxylic acid, polynuclear hydrocarbon	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	15

Course description (practical)		
weeks	Laboratory sessions & Clinical requirements	hours
1	Laboratory instruction, safety rule, equipments	2
2	Identification of some common inorganic cation	2
3	Identification of some common inorganic anions	
4	Practic. With balances (preparation of different types of solutions. Percentage solution (w/v %, v/v %, w/w %) ppm)	2
5	Normal solution, molar solution, dilution	2
6	Buffer solutions preparation and pH determination	2
7	Neutralization reaction (standardization of NaOH against standard HCL Determination of acetic acid in vinegar Determination of a mixture of carbonate, bicarbonate)	2
8	Redox titration Titration of KMNO ₄ solution against oxalic acid	2
9	Precipitation reaction, determination of halides Cl ⁻ ion	2
10	Separation and purification of organic compound Distillation, extraction, crystallization, sublimation	2
11	Determination of melting point Determination of boiling point	2
12	Reaction of some organic compounds (Aliphatic, aromatic alcohols, phenols, aldehyde and ketone)	2
13	Aliphatic and aromatic carboxylic acid	2
14	Scheme for identification	2
15	Scheme for identification of solid organic compound	2

Course Evaluation

1. Course evaluation

weekly examination
reports

Homeworks	
Learning and teaching resources	
References 1-Chemistry for the health sciences , sakheim and lehman 5th ed.1981 2-General ,organic a biochemistry,Karene.Timber 2007	

Course name
General chemistry
Course code
ALT11201
semester/ year
one semester, with an average of 15 lectures.
Date this description was prepared
٢٠٢٦/2/28
Available attendance forms
My presence only
Number of study hours (total) / Number of units (total)
Number of units=3
Name of the course administrator (if more than one name is mentioned)
Name: Mohammed Ahmed Abd Mohammed.ahmed@gu.edu.iq
objectives Course
understand the fundamental principles of atomic structure and chemical bonding. Explain periodic trends using the Periodic Table. Perform stoichiometric calculations and balance chemical equations. Apply gas laws and explain states of matter. Calculate solution concentrations (molarity, molality, normality). Analyze acids and bases, calculate pH, and interpret titration results. Apply thermochemistry principles to chemical reactions.

Develop safe laboratory skills and accurate experimental techniques.

Teaching and learning strategies

Teaching Strategies

Interactive Lectures

Concept-focused lectures with real-life applications (health, environment, industry).

Problem-Based Learning (PBL)

Solving numerical problems (stoichiometry, gas laws, pH).

Think–Pair–Share Activities

Short conceptual questions during class.

Multimedia Demonstrations

Animations to explain atomic structure, bonding, and reaction mechanisms.

Flipped Classroom (Selected Topics)

Students review videos before class; in-class time for problem solving.

Course structure

Evaluation method	Learning method	Name of unit or topic	Required learning outcomes	watches	week
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Introduction to analytical chemistry (matter structure of atom, periodic table, bonds)	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	1
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Methods of analysis Solution (preparation of standard solution, concentration, percent formal. Sol.	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law).	2	2

			Explain phase changes and phase diagrams.		
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Molar solution , Normal solution	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	3
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Statistical treatment of analytical data (accuracy, Mean value , deviation, standard deviation, mean value, systematic error, relative error , random absolute error	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	4
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Chemical reaction equilibrium constant, reaction rate , catalysis, solubility , ionization	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	5
Monthly and quarterly exams and quizzes	Integrated in-person lecture	Neutralization (acid base theory , PH , Buffers end point) Oxidation reduction Equilibria	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	6

			diagrams.		
Monthly and quarterly exam and quizzes	Integrated in-person lecture	Precipitation methods (gravimetry) formation ppt. , type of ppt. ag titration , calculations	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	7
Monthly and quarterly exam and quizzes	Integrated in-person lecture	Spectroscopy (Optical spectroscopy Beer's law)	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	8
Monthly and quarterly exam and quizzes	Integrated in-person lecture	Structure of carbon compounds (alkanes alkenes , alkynes , halogen compound)	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	9
Monthly and quarterly exam and quizzes	Integrated in-person lecture	Alcohols , classification properties reaction	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	10
Monthly and	Integrated in-person lecture	Aldehydes and ketone	Describe properties	2	11

quarterly exam and quizzes		properties reaction	of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.		
Monthly and quarterly exam and quizzes	Integrated in-person lecture	Aldehydes and ketone properties reaction	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	12
Monthly and quarterly exam and quizzes	Integrated in-person lecture	Carboxyl acid , amines Aromatic , Hydrocarbon	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	13
Monthly and quarterly exam and quizzes	Integrated in-person lecture	Carboxyl acid , amines Aromatic , Hydrocarbon	Describe properties of solids, liquids, and gases. Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.	2	14
Monthly and quarterly exam and quizzes	Integrated in-person lecture	Nitro compound , sulphur acids , Phenols , aromatic carboxyl acid , polynuclear hydrocarbon	Describe properties of solids, liquids, and gases.	2	15

			Apply gas laws (Boyle's Law, Charles's Law, Ideal Gas Law). Explain phase changes and phase diagrams.		
--	--	--	--	--	--

Course description (practical)		
weeks	Laboratory sessions & Clinical requirements	hours
1	Laboratory instruction , safety rule , equipments	2
2	Identification of some common inorganic cation	2
3	Identification of some common inorganic anions	
4	Practic. With balances (preparation of different types of solutions.Percentage sol (w/v % , v/v % , w/w %) ppm	2
5	Normal solution , molar solution , dilution	2
6	Buffer solutions preparation and PH determination	2
7	Neutralization reaction (standardization of NaOH against standard HCL Determination of acetic acid in vinegar Determination of a mixture of carbonate , bicarbonate	2
8	Redox titration Titration of KMNO4 solution against oxalic acid	2
9	Precipitation reaction , determination of halides Cl-ion	2
10	Separation and purification of organic compound Distillation , extraction crystallization , sublimation	2
11	Determination of melting point Determination of boiling point	2
12	Reaction of some organic compounds (Aliphatic , aromatic alcohols phenols , aldehyde and ketone)	2
13	Aliphatic and aromatic carboxylic acid	2
14	Scheme for identification	2
15	Scheme for identification of solid organic compound	2

Course Evaluation

2. Course evaluation

weekly examination
reports

Homeworks

Learning and teaching resources

References

1-Chemistry for the health sciences ,
sakheim and lehman 5th ed.1981

2-General ,organic a

biochemistry,Karene.Timber 2007	



University Name: Gilgamesh University

Faculty/Institute:

Academic or Professional Program Name:

Final Certificate Name:

Academic System:

Description Preparation Date: Credit-hour system

Signature:

Head of Department Name:

Date:

Signature:

Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance

Department:

Date:

Signature:

Approval of the Dean

15. Program Vision

16. Program Mission

17. Program Objectives

18. Program Accreditation

19. Other external influences

20. Program Structure

[illegible]

[illegible]

[illegible]

22. Expected learning outcomes of the program	
Knowledge	
Skills	
Ethics	

23. Teaching and Learning Strategies

--

24. Evaluation methods
a. Daily quizzes b. Midterm exams c. Weekly reports d. Daily attendance and participation e. Practical exams in hospitals f. Graduation research project

25. Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Lecturer						
Assistant Lecturer						

Professional Development
Mentoring new faculty members
Professional development of faculty members

B

26. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)
--

27. The most important sources of information about the program
--

28. Program Development Plan

--

Program Skills Outline	
------------------------	--

	Required program Learning outcomes
--	---

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluati**

Course Description Form

Course name Biology					
Course code ALT1\2.2					
semester/ year Spring Semester / 2025 - 2026					
Date this description was prepared 1/3/ 2026					
Available attendance forms In-person (Full attendance Required)					
Number of study hours (total) / Number of units (total) 5 Units / 4 Hours per week					
Name of the course administrator Asst. Lect. Hussein Dayish Toshash					
objectives Course : Understanding the basics of life: Studying cells, their components, and living tissues helps in understanding how living organisms function, from the simplest life forms to complex organisms such as humans.					
Teaching and learning strategies: Theoretical lectures are presented along with conducting unannounced pop quizzes after each lecture, organizing effective scientific discussions, in addition to assigning research projects to students during the semester, and working on enhancing their focus by asking questions and encouraging dialogue and scientific exchange among them.					
Coursestructure					
Evaluationmethod	Learningmethod	Nameofunitortopic	Requiredlearningoutcomes	watches	week
Written & Practical Exams	In-person	Introduction to biology: the cells, prokaryotic and eukaryotic cells, animal and plant cell	Providing students with the ability to apply theoretical knowledge in practical and research contexts	4	1
Written & Practical Exams	In-person	The Structure of cells, types, shape and size		4	2+3
Written & Practical Exams	In-person	Movement in and out of cells: diffusion, osmosis, active transport		4	4+5
Written & Practical Exams	In-person	Cell division: Amitosis, Mitosis and Meiosis		4	6

Written & Practical Exams	In-person	Nucleic acid: DNA and RNA, DNA Replication		4	7+8
Written & Practical Exams	In-person	Protein biosynthesis		4	9
Written & Practical Exams	In-person	Human body tissues: Epithelial tissues		4	10+11
Written & Practical Exams	In-person	Muscular and Nervous tissues		4	12+13
Written & Practical Exams	In-person	Connective tissues: Bone and cartilage		4	14
Written & Practical Exams	In-person	Blood (R.B.C and WBC) and lymph		4	15

Course Evaluation :

The total grade (100 marks) is distributed according to the assignments and activities assigned to the student, such as regular daily preparation, daily quizzes (written and oral), monthly exams, and final written exams, in addition to preparing reports and other related tasks.

Learning and teaching resources

1. Glencoe. Biology: Dynamics of Life . McGraw-Hill, 2008.	
2. Mader, S. Biology: Inquiry into Life . 9th Edition.	
3. Prescott, L., Harley, J., & Klein, D. Microbiology . 6th Edition.	
4. Mader, S. Biology: Inquiry into Life . 9th Edition.	

Course description form

1. Course Name
human rights
2. Code The decision
HMT121(human rights)
3. the chapter /the year 2025\2026
The first stage
4. Date this was prepared the description

22/9/2025		
5. aAttendance forms available		
My presence		
6. Number of study hours (total)/number of units (total)		
(Two hours) Weekly		
7. Name of the course administrator(If more than one name is mentioned)		
Name: Humam Ali Sabeeh Emali: Humam.a.sabeeh@gu.edu.iq		
8. Course objectives		
➤ Disseminate the concept of human rights and a statementSpeciesRights, freedoms, and intellectual contribution to the development of this idea.	Objective of study subject	
➤ Statement of the position of international agreements and Iraqi and Arab constitutions on these rights.		
➤ Educating on legal, judicial and political means of protecting human rights.		
9. Teaching and learning strategies		
- Attendance lectures (lecturerfigWeekly) and interactive lectures Electronic(Google meet) As needed. - Using modern educational methods and techniques and (Powerpoint)	The strateg	

The first stage/Chapter one
human rights

10. Course structure					
Evaluation method	Learning method	Name of the unit or topic/	Required learning outcomes	hours	the week
Oral exam, student participation, interaction and attendance	Theoretical lecture	The concept of right, humanity and human rights	Know and understand	1	the first
Oral exam, student participation, interaction and attendance	Theoretical lecture	The historical development of the idea of human rights in antiquity and the Middle Ages	Know and understand	1	the second

Oral exam, student participation, interaction and attendance	Theoretical lecture	The historical development of the idea of human rights in the Renaissance and the beginning of the modern era	Know and understand	1	the third
Oral exam, student participation, interaction and attendance	Theoretical lecture	The historical development of the idea of human rights in divine laws/Islamic law	Know and understand	1	the fourth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Intellectual contribution to the development of the idea of human rights / ancient and medieval times	Know and understand	1	Fifth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Intellectual contribution to the development of the idea of human rights / in the Renaissance and the early modern era	Know and understand	1	VI
Oral exam, student participation, interaction and attendance	Theoretical lecture	Types of rights and freedoms/traditional freedoms	Know and understand	1	Seventh
Oral exam, student participation, interaction and attendance	Theoretical lecture	Economic freedoms	Know and understand	1	VIII
Oral exam, student participation, interaction and attendance	Theoretical lecture	Social freedoms	Know and understand	1	Ninth

attendance					
Oral exam, student participation, interaction and attendance	Theoretical lecture	Human rights in declarations of rights and regional documents/national and universal declarations of rights	Know and understand	1	The tenth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Human rights in regional agreements	Know and understand	1	eleventh
Written exam	Theoretical lecture	Written exam	Know and understand	1	twelveth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Human rights in Iraqi constitutions	Know and understand	1	Thirteenth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Legal and judicial means of protecting human rights	Know and understand	1	fourteenth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Political means of protecting human rights	Know and understand	1	Fifteenth

11. 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. - A written semester exam of 20 points - Student attendance and participation in class, oral exams, quick exams, and submission of work papers

And research of 10 marks - Final exam of 70 points - Total 100 marks	
12. Learning and teaching resources	
	Required textbooks (methodology, if any)
Required textbooks/Human Rights book by Dr. Hamid Hanoun Khaled	Main references (sources)
LooksIslamicIn the Declaration of Human Rights by Muhammad Muhammad Sadiq al-Sadr Based on the letter of the Ministry of Higher Education and Scientific Research / Department of Studies and Planning and Follow-up / Department of Studies and Planning, No. 3/7659 dated 10/19/2023.	Supporting books and references that Recommended (scientific journals, reports....)
	Electronic references, Internet sites

Course description form

10. Course Name
human rights
11. CodeThe decision
HMT121(human rights)
12. the chapter /the year 2025\2026
The first stage
13. Date this was preparedthe description
22/9/2025
14. aAttendance forms available
My presence
15. Number of study hours (total)/number of units (total)
(Two hours) Weekly
16. Name of the course administrator(If more than one name is mentioned)

Name: Humam Ali Sabeeh
 Email: Humam.a.sabeeh@gu.edu.iq

17. Course objectives

- Disseminate the concept of human rights and a statement of rights, freedoms, and intellectual contribution to the development of this idea.
- Statement of the position of international agreements and Iraqi and Arab constitutions on these rights.
- Educating on legal, judicial and political means of protecting human rights.

**Objective
of
study
subject**

18. Teaching and learning strategies

- Attendance lectures (lecturer figure Weekly) and interactive lectures Electronic (Google meet) As needed.
- Using modern educational methods and techniques and (Powerpoint)

**The
strategies**

The first stage/Chapter one human rights

10. Course structure

Evaluation method	Learning method	Name of the unit or topic/	Required learning outcomes	hours	the week
Oral exam, student participation, interaction and attendance	Theoretical lecture	The concept of right, humanity and human rights	Know and understand	1	the first
Oral exam, student participation, interaction and attendance	Theoretical lecture	The historical development of the idea of human rights in antiquity and the Middle Ages	Know and understand	1	the second
Oral exam, student participation, interaction and attendance	Theoretical lecture	The historical development of the idea of human rights in the Renaissance and the beginning of the modern era	Know and understand	1	the third

Oral exam, student participation, interaction and attendance	Theoretical lecture	The historical development of the idea of human rights in divine laws/Islamic law	Know and understand	1	the fourth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Intellectual contribution to the development of the idea of human rights / ancient and medieval times	Know and understand	1	Fifth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Intellectual contribution to the development of the idea of human rights / in the Renaissance and the early modern era	Know and understand	1	VI
Oral exam, student participation, interaction and attendance	Theoretical lecture	Types of rights and freedoms/traditional freedoms	Know and understand	1	Seventh
Oral exam, student participation, interaction and attendance	Theoretical lecture	Economic freedoms	Know and understand	1	VIII
Oral exam, student participation, interaction and attendance	Theoretical lecture	Social freedoms	Know and understand	1	Ninth
Oral exam, student participation, interaction and	Theoretical lecture	Human rights in declarations of rights and regional documents/national and universal declarations of	Know and understand	1	The tenth

attendance		rights			
Oral exam, student participation, interaction and attendance	Theoretical lecture	Human rights in regional agreements	Know and understand	1	eleventh
Written exam	Theoretical lecture	Written exam	Know and understand	1	twelveth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Human rights in Iraqi constitutions	Know and understand	1	Thirteenth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Legal and judicial means of protecting human rights	Know and understand	1	fourteenth
Oral exam, student participation, interaction and attendance	Theoretical lecture	Political means of protecting human rights	Know and understand	1	Fifteenth

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. - A written semester exam of 20 points - Student attendance and participation in class, oral exams, quick exams, and submission of work papers And research of 10 marks - Final exam of 70 points - Total 100 marks	
14. Learning and teaching resources	
	Required textbooks (methodology, if any)

Required textbooks/Human Rights book by Dr. Hamid Hanoun Khaled	Main references (sources)
LooksIslamicIn the Declaration of Human Rights by Muhammad Muhammad Sadiq al-Sadr Based on the letter of the Ministry of Higher Education and Scientific Research / Department of Studies and Planning and Follow-up / Department of Studies and Planning, No. 3/7659 dated 10/19/2023.	Supporting books and references that Recommended (scientific journals, reports....)
	Electronic references, Internet sites

Course Description Form

Organic Chemistry

Course Description Form
1. Course Name: Organic Chemistry
2. Course Code: HMT227
3. Semester / Year: Second Semester / First Year
4. Description Preparation Date: 2025-2026
5. Available Attendance Forms: presence
6. Number of Credit Hours (Total) / Number of Units (Total): 60 Hours / 3 Units (2 Theoretical + 1 Practical)
7. Course Administrator's Name: Asmiel Sadeq Khashan asmiel.s.khashan@gu.edu.iq

8. Course Objectives

General Goal: To equip students with fundamental knowledge of organic chemistry and its connections to biochemistry and polymer chemistry, with applications in the medical and laboratory fields.

Specific Objectives:

1. Identify hydrocarbons (alkanes, alkenes, alkynes), classify and name them using IUPAC rules.
2. Understand the properties and reactions of alcohols, aldehydes, ketones, and carboxylic acids.
3. Study amines and aromatic compounds and their medical applications.
4. Link organic chemistry to biochemistry (carbohydrates, amino acids, proteins).

5. Understand the fundamentals of polymer chemistry (classification, reactions, natural polymers).
6. Recognize the principles of green chemistry and the mechanics of elastic solids.
7. Acquire practical laboratory skills (purification, separation, chromatography, distillation, quantitative estimation).

9. Teaching and Learning Strategies

1. Theoretical lectures using PowerPoint presentations covering foundations and objectives of each topic.
2. Practical laboratory sessions to apply theoretical concepts (purification, separation, chromatography, polymer preparation).
3. Small group assignments to solve and present chemistry problems.
4. Regular short quizzes to verify comprehension.
5. Brainstorming and group discussion sessions.
6. Viewing explanatory videos of chemical reactions and experiments.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit / Topic Name	Learning Method	Evaluation Method
1	2	Identify the fundamentals of organic chemistry and hydrocarbons	Introduction to Organic Chemistry – hydrocarbons: definition, classification, importance	Lecture / PowerPoint	Quiz

2	2	Understand alkanes: structure, nomenclature and reactions Practical: Purification of organic compounds	Alkanes – structure, IUPAC nomenclature, physical and chemical properties Lab: Purification of organic compounds	Lecture + Lab	Quiz
3	2	Understand alkenes and alkynes and their reactions Practical: Separation of organic compounds	Alkenes and Alkynes – structure, nomenclature, addition reactions Lab: Separation of organic compounds	Lecture + Lab	Oral exam
4	2	Classify alcohols and understand their properties and reactions Practical: Hydrolysis of polysaccharides by saliva	Alcohols – classification, properties, oxidation and esterification reactions Lab: Hydrolysis of polysaccharides by saliva	Lecture + Lab	Written test

5	2	Understand advanced alcohol	Advanced alcohol reactions, ethers, medical and lab	Lecture + Lab	Quiz
---	---	-----------------------------	---	---------------	------

		reactions Practical: Estimation of alcohol	applications Lab: Estimation of alcohol		
6	2	Understand aldehydes and ketones and their reactions Practical: Estimation of aldehydes and ketones	Aldehydes and Ketones – physical and chemical properties, oxidation and reduction reactions Lab: Estimation of aldehydes and ketones	Lecture + Lab	Written test
7	2	Identify carboxylic acids and their reactions Practical: Estimation of phenol	Carboxylic Acids – properties, esterification and neutralization reactions Lab: Estimation of phenol	Lecture + Lab	Quiz

8	2	Understand amines and aromatic hydrocarbons Practical: Fractional distillation	Amines – classification, properties; aromatic hydrocarbons, Hückel's rule Lab: Fractional distillation	Lecture + Lab	Oral exam
9	2	Understand polynuclear	Polynuclear aromatic compounds	Lecture + Lab	Written test

		aromatic compounds Practical: Flame photometry	– structure, properties, medical applications Lab: Flame photometry		
10	2	Introduction to biochemistry: carbohydrates Practical: Chromatography	Carbohydrates – classification (mono-, di-, polysaccharides), properties, biological importance Lab: Chromatography	Lecture + Lab	Quiz

11	2	Identify amino acids and proteins Practical: Thin layer chromatography (TLC)	Amino acids and proteins – structure, classification, biochemical importance Lab: Thin layer chromatography technique	Lecture + Lab	Oral exam
12	2	Introduction to polymer chemistry Practical: Preparation of nylon	Polymers – introduction, classification (natural/synthetic), general properties Lab: Preparation of nylon	Lecture + Lab	Written test
13	2	Understand polymer	Reactions of polymers – addition	Lecture / PowerPoint	Quiz
		reactions and natural polymers	and condensation polymerization; natural polymers and their uses		
14	2	Understand mechanics of elastic solids and stress-strain curve	Mechanics of elastic solids – stress, strain, Stress-Strain curve and its significance	Lecture / PowerPoint	Oral exam

15	2	Understand green chemistry principles; comprehensive review	Green Chemistry – twelve principles, applications, general review of course material	Lecture / Group discussion	Midterm exam
----	---	---	--	----------------------------	--------------

11. Course Evaluation

Grade distribution out of 100, based on daily tasks, oral and monthly exams, and final exam:

- 10% First semester theoretical exam
- 10% First semester practical exam
- 10% Second semester theoretical exam
- 10% Second semester practical exam
- 60% Final exam (35% theoretical + 25% practical)

	Organic Chemistry – Morrison & Boyd Organic Chemistry – John McMurry Biochemistry – Lippincott's Illustrated Reviews
Recommended books and references (scientific journals, reports...)	Electronic references, websites

12. Learning and Teaching Resources

Required textbooks (methodology)	Key references (sources)
---	---------------------------------

Specialized scientific chemistry journals	www.chemspider.com www.khanacademy.org www.chemguide.co.uk
---	--