Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2026

Academic Program Description Form

University Name: Alamal College For Specialized Medical Sciences

Faculty/Institute: Alamal College For Specialized Medical Sciences

Scientific Department: Community Health Techniques

Academic or Professional Program Name :Community Health Techniques

Final Certificate Name: Bachelor of Community Health Techniques

Academic System: Courses

Description Preparation Date: 1-1-2026

File Completion Date: 1-1-2026

Signature:

Head of Department Name:

Date: 14/12/2026

Signature:

Scientific Associate Name: Prof. Dr. Abdulameer K. Farhood

Date: 12/14/2026

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 4/12

Signature: Abbas Fadhil Hassoon

Approval of the Dean

Introduction :

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic program and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable. Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are

followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program .

1. **Program Vision**
   - To be the best community health department by 2030
2. **Program Mission**
   - Providing an exceptional educational and technical program that harmoniously combines theoretical knowledge and practical skills, thru an environment that stimulates scientific research and community partnership. We are committed to training professionals and technical specialists in community health and the environment, who possess professional and ethical competence, and are equipped with the latest skills needed to meet the demands of the job market. By providing innovative technical education.
   - We strive to empower our graduates to identify health issues, offer effective preventive solutions, and develop field programs according to global standards, ensuring the enhancement of health awareness, prevention of environmental and epidemic risks, and achieving the highest levels of safety for individuals and the community.
3. **Program Objectives**
   - Training specialized technical cadres: Preparing graduates proficient in the scientific and technical skills necessary to work in various sectors of public health and health regulation.
   - Integrating technology with health: Training students to use modern technologies and smart solutions in monitoring epidemics and analyzing community health data.
   - Enhancing the preventive aspect: Establishing the concepts of preventive medicine and developing graduates' abilities in designing and implementing health awareness campaigns to reduce the spread of diseases.

- Developing environmental monitoring skills: Enabling students with health monitoring methods for food, water, and the environment to ensure compliance with global standard specifications.
- Keeping up with the job market: Continuously updating the curricula to ensure that graduates are equipped with the skills required in the public and private health sectors and international organizations.
- Supporting applied scientific research: Encouraging students and academic staff to conduct field scientific research that addresses contemporary health issues in society.
- Instilling professional ethics: Emphasizing the commitment of graduates to health work ethics and social responsibility toward the safety of individuals and communities.
- Leadership in occupational safety: Training graduates on Occupational Safety and Health Administration (OSHA) standards to protect the workforce in various industrial and service establishments.
- Effective community partnership: Building bridges of cooperation with health and community institutions thru providing consultations and field training programs.
- Achieving global quality standards: striving to obtain academic and professional accreditations that ensure the program's educational outcomes are distinguished at the local and regional levels.

4. Program Accreditation

No accreditation

5. Other external influences

No external influences

6. Program Structure				
Program Structure	**Number of Courses**	**Credit hours**	**Percentage**	**Reviews**
Institution Requirements	• Medical terminology • Human Rights and Democracy • Arabic Language • Computer Basics and Applications • Baath Party Crimes in Iraq	19	7.5	
College Requirements	• General Anatomy • Pharmacology • Medical Entomology • Chronic Diseases • Medical Microbiology • Health Management	72	28.3	
Department requirements	• Medical Device Technologies • Principles of Community Health • Clinical Chemistry • Physiology • Nutrition Infectious Diseases Epidemiology • Environmental Health • Health Laws and Regulations • Environmental Pollution • Advanced Biostatistics • Toxicology • Health Survey	163	64.2	

	• Community Health Services • Health Education and Health Management			
Summer Training	Level 2-3 + Level 3-4			
other	Scientific and field visits to relevant factories and health institutions			

	7. Program description				
Year/Level	Course Code	Course Name	Credit Hours		
			theoretical	practical	Total
2025-2026 / First	1-101-1-CHD	Techniques for Medical Device	2	4	6
2025-2026 / First	2-101-1-CHD	Medical Microbiology 1	2	4	6
2025-2026 / First	3-101-1-CHD	Principles of community health 1	2	4	6
2025-2026 / First	4-101-1-CHD	Clinical Chemistry 1	2	4	6
2025-2026 / First	5-101-1-CHD	General Anatomy 1	2	4	6
2025-2026 / First	6-101-1-CHD	Physiology 1	2	4	6
2025-2026 / First	7-101-1-CHD	Medical Terminology	2	–	2
2025-2026 / First	8-101-1-CHD	Human rights and Democracy	2	–	2
2025-2026 / First	9-101-1-CHD	Computer Principles	1	2	3
2025-2026 / First	1-102-1-CHD	Medical Microbiology 2	2	4	6
2025-2026 / First	2-102-1-CHD	Principles of community health 2	2	4	6
2025-2026 / First	3-102-1-CHD	Clinical Chemistry 2	2	4	6
2025-2026 / First	4-102-1-CHD	General Anatomy 2	2	4	6
2025-2026 / First	5-102-1-CHD	Physiology 2	2	4	6
2025-2026 / First	6-102-1-CHD	Arabic Language	2	-	2
2025-2026 / Second	1-201-2-CHD	Nutrition 1	2	4	6
2025-2026 / Second	2-201-2-CHD	Communicable diseases 1	2	4	6
2025-2026 / Second	3-201-2-CHD	Pharmacology 1	2	2	4
2025-2026 / Second	4-201-2-CHD	Epidemiology 1	2	4	6
2025-2026 / Second	5-201-2-CHD	Environmental Health 1	2	4	6
2025-2026 / Second	6-201-2-CHD	Computer Applications	1	2	3
2025-2026 / Second	7-201-2-CHD	Baath Party Crimes in Iraq	2	-	2

2025-2026 / Second	**1-202-2-CHD**	**Nutrition 2**	**2**	**4**	**6**
2025-2026 / Second	**2-202-2-CHD**	**Communicable diseases 2**	**2**	**4**	**6**
2025-2026 / Second	**3-202-2-CHD**	**Pharmacology 2**	**2**	**2**	**4**
2025-2026 / Second	**4-202-2-CHD**	**Epidemiology 2**	**2**	**4**	**6**
2025-2026 / Second	**5-202-2-CHD**	**Biostatistics**	**2**	**2**	**4**
2025-2026 / Second	**6-202-2-CHD**	**Environmental Health 2**	**2**	**4**	**6**
2025-2026 / Second	**7-202-2-CHD**	**Arabic Language**	**2**	**-**	**2**
2025-2026 / Third	**1-301-3-CHD**	**Health laws and supervision**	**2**	**4**	**6**
2025-2026 / Third	**2-301-3-CHD**	**Environmental Pollution**	**2**	**4**	**6**
2025-2026 / Third	**3-301-3-CHD**	**Medical Entomology**	**2**	**4**	**6**
2025-2026 / Third	**4-301-3-CHD**	**Advance Vital Statistics 1**	**2**	**4**	**6**
2025-2026 / Third	**5-301-3-CHD**	**Chronic diseases 1**	**2**	**4**	**6**
2025-2026 / Third	**6-301-3-CHD**	**Applications of computer 1**	**1**	**2**	**3**
2025-2026 / Third	**1-302-3-CHD**	**Toxicology**	**2**	**2**	**4**
2025-2026 / Third	**2-302-3-CHD**	**Methodology**	**2**	**4**	**6**
2025-2026 / Third	**3-302-3-CHD**	Health Survey	2	4	6
2025-2026 / Third	**4-302-3-CHD**	**Health Management**	**2**	**-**	**2**
2025-2026 / Third	**5-302-3-CHD**	**Advance Vital Statistics 2**	**2**	**4**	**6**
2025-2026 / Third	**6-302-3-CHD**	**Chronic diseases 2**	**2**	**4**	**6**
2025-2026 / Third	**7-302-3-CHD**	**Applications of computer 2**	**1**	**2**	**3**
2025-2026 / Fourth	**1-401-4-CHD**	**Community health services 1**	**2**	**5**	**7**
2025-2026 / Fourth	**2-401-4-CHD**	**Occupational Health 1**	**2**	**4**	**6**

2025-2026 / Fourth	**3-401-4-CHD**	**Clinical epidemiology 1**	**2**	**4**	**6**
2025-2026 / Fourth	**4-401-4-CHD**	**Health Education**	**2**	**5**	**7**
2025-2026 / Fourth	**5-401-4-CHD**	**Non Communicable Diseases 1**	**2**	**4**	**6**
2025-2026 / Fourth	**6-401-4-CHD**	**International Health**	**2**	**4**	**6**
2025-2026 / Fourth	**1-402-4-CHD**	**Community health services 2**	**2**	**5**	**7**
2025-2026 / Fourth	**2-402-4-CHD**	**Occupational Health 2**	**2**	**4**	**6**
2025-2026 / Fourth	**3-402-4-CHD**	**Control of Communicable Diseases**	**2**	**4**	**6**
2025-2026 / Fourth	**4-402-4-CHD**	**Clinical epidemiology 2**	**2**	**4**	**6**
2025-2026 / Fourth	**5-402-4-CHD**	**Non Communicable Diseases 2**	**2**	**4**	**6**
2025-2026 / Fourth	**6-402-4-CHD**	**Project**	**-**	**6**	**6**
2025-2026 / Fourth	**7-402-4-CHD**	**Professional ethics**	**2**	**-**	**2**

8. Expected Learning outcomes of the program

Knowledge

- Applying the knowledge provided to him through follow-up with specialized instructors in the same field through achievement and surprise tests
- Understanding the scientific basis of communicable and chronic diseases and methods of prevention.
- Training students to use modern information and communication technologies in healthcare management.
- Acquiring the necessary knowledge to ensure the quality of treatment and healthcare provided to the community.

Skills

- Applying health service skills
- Applying vaccination skills and identifying vaccination locations
- Applying health program skills
- The ability to understand and analyze all aspects of healthcare services.
- The ability to develop a healthcare program that aligns with the programs studied.

Ethics	
• Citizenship • Cultural diversity and respect for differing opinions • Transparency and integrity	• Quality assurance • Creativity and dedication to work • Community service

9. Teaching and Learning Strategies

- Brainstorming
- Scientific discussions

10. Evaluation methods

- Surprise exams
- Scientific reports
- Final exams
- Laboratory experiments

11. Faculty				
				Faculty Members
Academic Ranks	Specialization	Special Requirements/Skills (if applicable)		Number of the teaching staff
Assistant Professor	Chemistry			3
Assistant Professor	Microbiology			1
Lecturer	Chemistry			1
Lecturer	Arabic Language			1
Lecturer	Maths			1
Assistant lecturer	Chemistry			1
Assistant lecturer	English language			1
Assistant lecturer	Community			1
Assistant lecturer	Community Health			1

Professional Development
Mentoring new faculty members
New faculty members are developed through teaching methodologies courses, a teaching competency test, and training courses, seminars, and workshops to train them on approved work contexts.
Professional development of faculty members
A comprehensive faculty plan integrates active learning and inclusive pedagogy to drive engagement, utilizes authentic, data-driven assessments to ensure outcome mastery, and fosters a culture of continuous growth through structured mentorship and collaborative communities of practice.

12.Acceptance Criterion

- Admission is based on the admission plan approved by the Ministry of Higher Education and Scientific Research, according to the annual average of graduates from the scientific branch of secondary school, and taking into account the student's preference for admission.
- Admission is also based on a medical examination, where the results must show the student is fit for study.

13.The most important sources of information about the program

- textbooks
- Scientific research
- Books and pamphlets on community health
- The Internet

14.Program Development Plan

- Instructors should continuously update their lectures.
- Instructors should participate in conferences, seminars, and training courses.
- Instructors should publish their research in reputable international journals.
- Curricula should be updated to meet the needs of the job market.

Program Skills Outline													
		Required Program Learning Outcomes											
Level	Course	Knowledge				Skills				Ethics			
		A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
One	First	√						√					√
	Second	√						√					√
Two	First	√					√					√	
	Second	√					√					√	
Three	First	√						√				√	
	Second	√						√			√		
Four	First	√						√			√		
	Second	√						√		√			

Course specification

Review the performance of the higher education institution (review of the academic program)

provide students with a comprehensive understanding of pathogenic causes, focusing on their identification, diagnostic procedures, the specific pathologies they induce, and effective control strategies. To achieve this, the curriculum specifically aims to equip students with the skills to recognize various pathogenic bacteria, fungi, viruses, and protozoa that affect different body systems while studying their epidemiology and clinical symptoms. Furthermore, the course emphasizes the practical application of disease control measures and the study of human immunological resistance against these specific pathogens to ensure students are prepared for professional medical and technical environments..

1. **Educational Institution**	**Al-Amal College for specialized medical sciences**			
2. **University Department / Center**	**Community Health Techniques**			
3. **Course Name / Code**	**Clinical Chemistry**			
4. **Programs in which it is included**	**Community Health Techniques**			
5. **Available Forms of Attendance**	**Lectures and laboratory (weekly)**			
6. **Semester / Year**	**2026**			
7. **Total Number of Study Hours**		**Theoretical**	**Practical**	**Total**
		2	**4**	**6**
8. **Date of preparing this description**	**1-1-2026**			
9. **Course Objectives: provide students with a comprehensive understanding of pathogenic causes, focusing on their identification, diagnostic procedures**				
10. **Learning Outcomes, Teaching and Learning Methods, and Evaluation**				

A. Knowledge and Understanding

- Understanding how to effectively manage financial and human resources within medical treatment settings.
- Learning the methods for controlling each disease and understanding how the human body resists these specific infections.

B. Subject-Specific Skills

- The ability to analyze the structure of matter, chemical equations, and reactions to understand biological processes
- Applying volumetric analysis, titration, and oxidation-reduction principles to solve clinical and chemical problems

Teaching and Learning Methods

- Theoretical lectures
- Discussion with students
- Self-learning: Library and Net search - Assignments, problem solving Practical part

C. Evaluation Methods

- Exam 1written (Semester work)
- Midterm Exam
- Exam 2 ..... (Semester work)
- Applied Exercise
- Final practical exam
- Final Written Exam

D. Thinking Skills

- Mastery of essential laboratory techniques such as filtration, extraction, distillation, and titration.
- Skills in performing diagnostic tests to estimate levels of substances such as blood glucose (carbohydrates), lipids (cholesterol), and proteins in biological samples.
- The ability to accurately prepare chemical solutions using various methods, including molarity, normality, and dilution.

E. General and Transferable Skills

- Demonstrate communication in written and oral.
- Use of information technology and resources.
- Demonstrate the ability to work effectively as a member of a team.

11. Course Structure

Weeks	Hours	Required Learning Outcomes	Unit Name / Course or Topic	Learning Methods	Evaluation Method
١	2 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Structure of matter Lab tools, hazards, and medical devices	lecture Practical	discussion discussion
٢+3	2 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Chemical bonding Solution preparation (Molarity, Normality, Dilution)	lecture Practical	discussion discussion
4+5	2 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Chemical equation and reaction Solution preparation (Molarity, Normality, Dilution)	lecture Practical	discussion discussion
6+7	2 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	The gaseous state Measuring acids and bases in water and blood	lecture Practical	discussion discussion
8	2 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Air pollution Volumetric analysis, titration, and precipitation	lecture Practical	discussion discussion
9	2 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Oxidation-reduction Volumetric analysis, titration, and precipitation	lecture Practical	discussion discussion
10+11	2 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Liquid mixtures Volumetric analysis, titration, and precipitation + exam	lecture Practical	discussion discussion

12+13	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Solutions Organic separation (Filtration, Extraction, Distillation)	**lecture** **Practical**	**discussion** **discussion**
14+15	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Acids-bases and salts Detection of alcohols	**lecture** **Practical**	**discussion** **discussion**
16	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Alcohol Detection of carboxylic acids	**lecture** **Practical**	**discussion** **discussion**
17+18	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Aldehydes and ketones Unknown identification test+ Detection of simple and complex sugars	**lecture** **Practical**	**discussion** **discussion**
19+20	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Acids and Amines Detection of simple and complex sugars	**lecture** **Practical**	**discussion** **discussion**
21	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Heterocyclic compounds Cholesterol detection	**lecture** **Practical**	**discussion** **discussion**
22	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Optical activity Proteins (types and general/specific detection)	**lecture** **Practical**	**discussion** **discussion**
23+24	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Carbohydrates. Sodium and Potassium estimation	**lecture** **Practical**	**discussion** **discussion**

25+26	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Lipids Amylase enzyme estimation	**lecture** **Practical**	**discussion** **discussion**
27+28	**2** 4	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Proteins Hemoglobin and Albumin estimation	**lecture** **Practical**	**discussion** **discussion**

12. Infrastructure	
Required Readings:	**References:** 1. Beckett, Geoffrey, Peter Rae, and Peter Ashby. *Lecture Notes: Clinical Biochemistry*. Vol. 23. John Wiley & Sons, 2010. 2. Ahmed, Nessar, ed. *Clinical biochemistry*. Oxford University Press, 2017. 3. *Beckett, Geoffrey, Simon W. Walker, Peter Rae, and Peter Ashby. Clinical biochemistry. John Wiley & Sons, 2013.*
Special Requirements (Workshops, Journals, Software, Websites):	**Electronic Websites:** • https://womengovtcollegevisakha.ac.in/departments/introduction-to-clinical-biochemistry.pdf • https://open.umn.edu/opentextbooks/textbooks/biochemistry-free-for-all-ahern
Social Services (Guest Lectures, Professional Training, Field Studies, Others)	---

13.	
Prerequisites	----
Minimum Number of Students	-----
Maximum Number of Students	------

Course specification

Review the performance of the higher education institution ((review of

This course description provides a summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, proving whether he has made the most of .the available learning opportunities and must be linked to the program description

1. Educational Institution	**Ministry of Higher Education and Scientific Research - Al- Amal College for Specialized Medical Sciences – Department of Community Health Techniques**
2. University Department / Center	**Community Health Techniques**
3. Course Name / Code	**Medical instruments**
4. Programs in which it is included	**1st year community health**
5. Available Forms of Attendance	
6. Semester / Year	**Second / 2025-2026**
7. Total Number of Study Hours	**30**
8. Date of preparing this description	**12/3/2026**

9. Course Objectives:

a. **Introduction to Medical Devices: Definition and basic concepts.**

b. **Identifying various types of medical equipment.**

c. **Understanding how devices like the microscope, autoclave, and centrifuge operate.**

d. **Mastering pH meters and concentration measurement devices (Spectrophotometers).**

e. **Identifying the essential parts of each instrument.**

f. **Learning safety and security rules for student operation**

1. **Learning Outcomes, Teaching and Learning Methods, and Evaluation**

E. Knowledge and Understanding

a. **Overview of medical device technology.**
b. **Key uses of medical instruments.**
c. **Understanding how devices work.**
d. **Applying safety protocols during use.**
e. **Analyzing results from clinical devices.**

F. Subject-Specific Skills

a. **Learning how to use and operate medical devices.**
b. **Developing result analysis skills and lab safety awareness.**
c. **Mastering device operation and maintenance techniques**

G. Teaching and Learning Methods

a. **Delivery of core theoretical content.**
b. **Utilizing smartboards and display screens.**
c. **Using applications like Google Forms for assessment.**
d. **Engaging students through questioning and deductive reasoning.**

H. Evaluation Methods

a. **Quizzes**
b. **Midterm and Final Exams**
c. **Seminars**
d. **Weekly Reports**
e. **Daily Attendance**

I. Thinking Skills

a. **Teamwork**
b. **Adherence to Institutional Ethics**
c. **Commitment to Human Dignity for All**
d. **Promoting the Pursuit of Knowledge**

e. General and Transferable Skills

a. **The student will be able to operate medical devices.**
b. **Utilizing simplified scientific methods to understand device mechanisms.**
c. **Safety and security procedures.**

10. Course Structure					
Weeks	**Hours**	**Required Learning Outcomes**	**Unit Name / Course or Topic**	**Learning Methods**	**Evaluation Method**
1	2	Identify on	Medical Device Concept	theoretical	Quizzes and audience
2	2	understanding	Introduction to Medical Instrumentation	theoretical	Quizzes and audience
3	2	understanding	Types of Medical Devices	theoretical	Quizzes and audience
4	2	understanding	Applications of Medical Devices	theoretical	Quizzes and audience
5	2	understanding	Microscope: Definition, Uses, and Different Types	theoretical	Quizzes and audience
6	2	understanding	Definition of Optical, Electron, and Fluorescence Microscopes.	theoretical	Quizzes and audience
7	2	understanding	Differences between Optical, Electron, and Fluorescence Microscopes.	theoretical	Quizzes and audience
8	2	understanding	Definition, Uses, and Types of Spectrophotometers.	theoretical	Quizzes and audience
9	2	understanding	Definition of Sterilization Devices (e.g., Autoclave).	theoretical	Quizzes and audience
10	2	understanding	Types and Applications of Autoclaves.	theoretical	Quizzes and audience
11	2	understanding	Definition, Types, and Uses of Centrifuges.	theoretical	Quizzes and audience
12	2	understanding	Definition of pH Meter.	theoretical	Quizzes and audience

13	**2**	**understanding**	**Components and Types of pH Meters and Different Acidity Levels.**	**theoretical**	**Quizzes and audience**
14	**2**	**understanding**	**Introduction to the Dry Heat Oven.**	**theoretical**	**Quizzes and audience**
15	**2**	**understanding**	**Comparison and Key Differences Between the Dry Heat Oven and the Autoclave.**	**theoretical**	**Quizzes and audience**

11. Infrastructure	
Required Readings:	**References:** Basic Clinical Laboratory Techniques, Barbara H. Estridge & Anna P. Reynolds, 2011, 6th edition
Special Requirements (Workshops, Journals, Software, Websites):	**Electronic Websites:** **https://www.cengage.com/c/basic-clinical-laboratory-techniques-6e-estridge-reynolds/9781111138363/**
Social Services (Guest Lectures, Professional Training, Field Studies, Others)	**Organizing workshops and courses for graduates:**

12.	
Prerequisites	
Minimum Number of Students	**10**
Maximum Number of Students	**20**

Course specification

Review the performance of the higher education institution (review of the academic program)

provide students with a comprehensive understanding of pathogenic causes, focusing on their identification, diagnostic procedures, the specific pathologies they induce, and effective control strategies. To achieve this, the curriculum specifically aims to equip students with the skills to recognize various pathogenic bacteria, fungi, viruses, and protozoa that affect different body systems while studying their epidemiology and clinical symptoms. Furthermore, the course emphasizes the practical application of disease control measures and the study of human immunological resistance against these specific pathogens to ensure students are prepared for professional medical and technical environments..

1. Educational Institution	**Al-Amal College for specialized medical sciences**
2. University Department / Center	**Community Health Techniques**
3. Course Name / Code	**Computer and artificial intelligence**
4. Programs in which it is included	**Community Health Techniques**
5. Available Forms of Attendance	**Lectures and laboratory (weekly)**
6. Semester / Year	**2026**
7. Total Number of Study Hours	**15**
8. Date of preparing this description	**1-1-2026**

- **Course Objectives:**
  - To enable the student to understand the basic components of a computer (hardware and software).
  - To enable the student to understand operating systems and their details.
  - To enable the student to understand the fundamentals of word processing and its details.
  - To enable the student to understand spreadsheets and their details.
  - To enable the student to understand the fundamentals of presentation software and its details.

9. Learning Outcomes, Teaching and Learning Methods, and Evaluation

J. Knowledge and Understanding

1. To identify computer components.
2. To identify the most important computer operating systems and how to use their graphical user interfaces.
3. To understand computer programs and ready-made applications.
4. To apply basic commands and instructions specific to the Windows operating system and its applications.

K. Subject-Specific Skills

- The student learns the skill of identifying computer components and how to assemble them in the lab.
- The student learns the skill of using ready-made programs for word processing, statistics, and presentations.
- The student acquires the skill of designing and implementing templates for text documents, statistical equations, and presentations using ready-made applications.

Teaching and Learning Methods

- Scientific lectures
- Using visual aids (interactive whiteboard and projector screen)
- Using visual aids in the laboratory
- Using electronic scientific programs and applications
- Scientific discussion, posing questions, and deriving answers from them

L. Evaluation Methods

- Exam 1written (Semester work)
- Midterm Exam
- Exam 2 ..... (Semester work)
- Applied Exercise
- Final practical exam
- Final Written Exam

M. Thinking Skills

- The student will be able to understand how to follow programs within computer systems.
- The student will be able to use the easiest and fastest methods to access and execute the instructions and commands required to perform a specific function on the computer.
- The student will be able to acquire the skills to use modern technologies in teaching and learning computer science.
- The student will be able to acquire the skills to identify problems resulting from computer misuse and work to solve them.

E. General and Transferable Skills

1. Teamwork

2. Adherence to the educational institution's ethics

3. Fostering a spirit of learning

10. Course Structure

Weeks	Hours	Required Learning Outcomes	Unit Name / Course or Topic	Learning Methods	Evaluation Method
1	1	Knowledge and Understanding	• Introduction to Computers	lecture	discussion
2	1	Subject-Specific Skills	• Computer Components	lecture	discussion
3	1	Professional and practical skills	• Types of Computers	lecture	discussion
4	1	Knowledge and Understanding	• Operating Systems and Graphical Interfaces	lecture	discussion
5	1	Subject-Specific Skills	• Understanding Graphical Interface Components	lecture	discussion
6	1	Professional and practical skills	• Introducing Microsoft Word	lecture	discussion
7	1	Knowledge and Understanding	• How to Use Microsoft Word	lecture	discussion
8	1	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Introducing Microsoft Excel	lecture	discussion
9	1	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	How to Use Microsoft Excel	lecture	discussion

10	**1**	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Introducing Microsoft PowerPoint	**lecture**	**discussion**
11	**1**	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	How to Use Microsoft PowerPoint	**lecture**	**discussion**
12	**1**	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Introduction to the Internet and Browsing	**lecture**	**discussion**
13	**1**	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Using the Internet and Browsing	**lecture**	**discussion**
14	**1**	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Communications and Email	**lecture**	**discussion**
15	**1**	• Knowledge and Understanding • Subject-Specific Skills • Professional and practical skills	Introduction to Cloud Computing	**lecture**	**discussion**

11. Infrastructure	
Required Readings:	**References:** 1. Raham brown, david Watson, "Cambridge IGCSE (Information and Communication Technology"3rd Edition(2020) 2. Evans, Kendall Martin, Mary Anne Poatsy, " Technology In Action Complete" 16 th Edition(2020)
Special Requirements (Workshops, Journals, Software, Websites):	**Electronic Websites:** • Al-Khader Ali Al-Khader, researcher, "Computer Basics",2016 . • Ziad Muhammad Abboud, researcher," Computer Basics and Office Applications" , 2014.
Social Services (Guest Lectures, Professional Training, Field Studies, Others)	---

12.	
Prerequisites	----
Minimum Number of Students	-----
Maximum Number of Students	------

Course Description Form

1. Course Name:
General Physiology (2)
2. Course Code:
PHY
3. Semester / Year:
2nd course 1st stage 2025-2026
4. Description Preparation Date:
٢٠٢٦-٣-٤
5. Available Attendance Forms:
In-person
6. Number of Credit Hours (Total) / Number of Units (Total)
٦ hours / 4 credits
7. Course administrator's name (mention all, if more than one name)
Lecturer Dr. Farah Talib Jubarah Lecturer Dr. Ghazi Ramadhan
8. Course Objectives
This course aims to introduce students to the basic concepts of the physiology of major body systems, especially the respiratory, digestive, urinary, nervous, endocrine, reproductive, skeletal, and special sensory systems. It also aims to enable students to understand physiological regulation, gas transport, body temperature control, kidney function, and hormonal regulation, while developing practical skills in blood, urine, and pulmonary function tests.
9. Teaching and Learning Strategies
The course is delivered through lectures, classroom discussions, illustrative diagrams, guided explanation, and laboratory training. Applied examples and modern teaching aids are also used to relate physiological concepts to essential clinical and laboratory applications.
10. Course Structure
First: Theoretical Course Structure

Week	Hours	Required Learning Outcome	Unit or subject name	Learning method	Evaluation method
1	2	Explain carbon dioxide transport in blood and the mechanism of its exchange.	Carbon Dioxide Transport and Exchange	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
2	2	Explain lung volumes and capacities and the different types of hypoxia.	Lung Volumes and Capacities, Types of Hypoxia	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
3	2	Lung Volumes and Capacities,	Physiology of Digestive	Lectures, discussions,	Quizzes, written

		Types of Hypoxia	System and Gastric Phases	illustrative diagrams	examinations, class participation
4	2	Explain the steps of digestion and absorption of carbohydrates, proteins, and fats.	Digestion and Absorption of Nutrients	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
5	2	Explain the urinary system, renal functions, and urine formation.	Urinary System, Renal Functions, and Urine Formation	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
6	2	Explain the role of the kidney in maintaining body fluids, regulating blood pressure, and acid-base balance.	Role of Kidney in Body Fluid, Blood Pressure, and Acid-Base Regulation	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
7	2	Explain body temperature regulation and control mechanisms.	Body Temperature Regulation and Control	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
8	2	Explain the central nervous system, brain functions, and major centers.	Explain the central nervous system, brain functions, and major centers.	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
9	2	Explain the spinal cord, cerebrospinal fluid, and spinal reflexes.	Spinal Cord, CSF, and Spinal Reflexes	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
10	2	Explain the peripheral nervous system, autonomic nervous system, and sensory system.	PNS, Autonomic and Sensory Systems	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
11	2	Explain hormone regulation, types, and secretion.	Endocrine System: Hormone Control, Types, and Secretion	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation

12	2	Explain hormonal secretion from different glands.	Hormonal Secretion from Different Glands	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
13	2	Explain male and female reproductive physiology.	Male and Female Reproductive Systems	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
14	2	Explain skeletal system physiology and its general functions.	Skeletal System Physiology	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
15	2	Explain the physiology of special senses, including vision, hearing, smell, and taste.	Explain the physiology of special senses, including vision, hearing, smell, and taste.	Lectures, discussions, illustrative diagrams	Quizzes, written examinations, class participation
Second: Practical Course Structure					
Week	**Hours**	**Required Learning Outcome**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	٤	Determine ABO blood groups using practical methods.	ABO Blood Types	Practical training, demonstration	Practical assessment, direct observation
2	٤	ABO Blood Types	Rh Factor	Practical training, demonstration	Practical assessment, direct observation
3	٤	Rh Factor	Cross-Match Test	Practical training, demonstration	Practical assessment, direct observation
4	٤	Perform blood coagulation tests and platelet count.	Blood Coagulation Tests and Platelet Count	Practical training, demonstration	Practical assessment, direct observation
5	٤	Measure the specific gravity of blood and plasma.	Specific Gravity of Blood and Plasma	Practical training, demonstration	Practical assessment, direct observation
6	٤	Measure bleeding time by different methods.	Bleeding Time	Practical training, demonstration	Practical assessment, direct observation

7	٤	Measure clotting time using capillary tube and slide methods.	Clotting Time: Capillary Tube and Slide Methods	Practical training, demonstration	Practical assessment, direct observation
8	٤	Measure clotting time using Lee and White method.	Clotting Time: Lee and White Method	Practical training, demonstration	Practical assessment, direct observation
9	٤	Clotting Time: Lee and White Method	Scientific Movies on Bleeding and Blood Transfusion	Practical training, demonstration	Practical assessment, direct observation
10	٤	Perform red blood cell fragility test.	RBC Fragility Test	Practical training, demonstration	Practical assessment, direct observation
11	٤	Measure blood viscosity.	Determination of Blood Viscosity	Practical training, demonstration	Practical assessment, direct observation
12	٤	Perform urine collection and physical examination.	Urine Collection and Physical Examination	Practical training, demonstration	Practical assessment, direct observation
13	٤	Perform chemical examination of urine and urine creatinine estimation.	Perform chemical examination of urine and urine creatinine estimation.	Practical training, demonstration	Practical assessment, direct observation
14	٤	Perform microscopic examination of urine and interpret findings.	Microscopic Examination of Urine	Practical training, demonstration	Practical assessment, direct observation
15	٤	Perform pulmonary function test and interpret the basic results.	Pulmonary Function Test	Practical training, demonstration	Practical assessment, direct observation

11. Course Evaluation

Students are evaluated through quizzes, assignments, class participation, written examinations, direct practical assessment, laboratory records, and practical examinations in order to assess both their theoretical understanding and laboratory performance.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	The course depends on standard textbooks in medical physiology and human anatomy and physiology, consistent with the theoretical and practical content of the course.
Main references (sources)	• Principles of Anatomy and Physiology • Ross & Wilson Anatomy and Physiology in Health and Illness • Clinical Neuroanatomy • Anatomy & Physiology
Recommended books and references (scientific journals, reports...)	Recommended references include: • Best & Taylor's Physiology • Medical Physiology • Essentials of Human Anatomy & Physiology • Journals such as Physiology Journal, Journal of Physiology, and Annual Review of Physiology.
Electronic References, Websites	• MedlinePlus • Mayo Clinic • WebMD • NIH • American Heart Association • American Cancer Society • NIDDK • American Lung Association • CDC • WHO

Course Description Form

1. Course Name:	
Medical terminology	
2. Course Code:	
3. Semester / Year: 1st year 2025-2026	
4. Description Preparation Date:	
2026/2/1	
5. Available Attendance Forms:	
ATTENDANCE in class	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 hour	
7. Course administrator's name (mention all, if more than one name)	
Name:Nadhim Imran kadhim Email:Nadhim.imran@alamal.edu.iq	
8. Course Objectives	
Course Objectives **Cognitive Objectives** **By the end of the course, the student will be able to:** **1. Define components of medical terms (Prefix, Root, Suffix).** **2. Interpret medical terminology related to body systems.** **3. Differentiate between pathological and procedural terms used in hospitals**	Skill Objectives 1. Write medical terms correctly according to scientific rules. 2. Pronounce medical terminology accurately. 3. Use medical terms to describe simple clinical cases Behavioral Objectives 1. Build confidence in using medical language. 2. Develop accuracy and professionalism to avoid medical errors. 3. Understand the importance of proper medical communication for patient safety
9. Teaching and Learning Strategies	

Strategy	**Teaching Methods** • Lectures • Use of teaching aids (smart board, projector) • Digital tools (e.g., Google Forms) • Interactive discussions and Q&A				
10. Course Structure					
Week	Hours	Required Learning Outcome	Unit or subject name	Learning method	Evaluation method
1	2	Introduction	Introduction + Prefixes & Suffixes	Lecture	Quiz + Attendance
2	2	Understandin	Integumentary System	Lecture	Quiz + Attendance
3	2	Understanding	Muscular System	Lecture	Quiz + Attendance
4	2	Understanding	Cardiovascular System	Lecture	Quiz + Attendance
5	2	Understanding	Respiratory System	Lecture	Quiz + Attendance
6	2	Understanding	Digestive System	Lecture	Quiz + Attendance
7	2	Understanding	Nervous System	Lecture	Quiz + Attendance
8	2	Understanding	Blood & Lymphatic System	Lecture	Quiz + Attendance
9	2	Understanding	Immune System Endocrine System	Lecture	Quiz + Attendance
10	2	Understanding	Common Diseases & Disorders	Lecture	Quiz + Attendance
11	2	Understanding	Five Senses	Lecture	Quiz + Attendance
12	2	Understanding		Lecture	

13	2	Understanding	Dental Terminology	Lecture	Quiz + Attendance
14	2	Understanding	Pharmaceutical Terminology	Lecture	Quiz + Attendance
15	2	Understanding	Laser & Cosmetic Medical Terminology	lecture	Quiz + Attendance

11. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports ....mid term from30 marks and final rom 70 marks.	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Medical Terminology for Health Care Professionals – Jane Rice Dental Terminology – Charline M. Dofka
Main references (sources)	Medical Terminology for Health Care Professionals – Jane Rice
Recommended books and references (scientific journals, reports...)	• Approved medical dictionaries • Medical educational online
Electronic References, Websites	• Online platforms and websites resources **Electronic Resources**

Course specification

Medical microbiology / first stage

This course description provides a summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, proving whether he has made the most of .the available learning opportunities and must be linked to the program description

1. Educational Institution	**Al – Amal University Of Specialist Medical Science**
2. University Department / Center	**Department of community health**
3. Course Name / Code	**Medical microbiology**
4. Programs in which it is included	**Bachelor in community health techniques**
5. Available Forms of Attendance	**Weekly**
6. Semester / Year	**Semester**
7. Total Number of Study Hours	**6/8**
8. Date of preparing this description	

9. Course Objectives: To enable the student to understand pathogenic microorganisms, including their characteristics, mechanisms of causing disease, methods of diagnosis, and strategies for their prevention and control.

Specific Objectives

1. To equip the student with comprehensive knowledge of pathogenic microorganisms, including **bacteria, fungi, viruses, and protozoa**, and their roles in causing diseases affecting different body systems.
2. To develop the student's ability to identify the **structure, classification, and biological characteristics** of these microorganisms, as well as the clinical manifestations associated with the diseases they cause.
3. To enhance understanding of the **pathogenesis** of microbial infections, including how microorganisms invade the host, multiply, and produce harmful effects.

4. To enable the student to recognize the **signs and symptoms** of common infectious diseases and correlate them with specific pathogens.
5. To provide knowledge of **diagnostic methods**, including laboratory techniques used to detect and identify infectious agents.
6. To improve awareness of **epidemiology**, including the distribution, transmission, and risk factors of microbial diseases in populations.
7. To develop understanding of the **immune response** and how the human body resists infections, including both innate and adaptive immunity.
8. To introduce methods of **prevention and control**, including sterilization, disinfection, vaccination, and appropriate use of antimicrobial agents.

10-Learning Outcomes, Teaching and Learning Methods, and Evaluation

Here is a well-organized and improved English version of your teaching strategies:

Teaching Strategies

1. **Cooperative Learning Strategy**
   Encourages students to work in groups to achieve shared learning goals, enhancing teamwork, communication skills, and active participation.
2. **Brainstorming Strategy**
   Promotes creative thinking by allowing students to generate and share ideas freely, helping to develop problem-solving and critical thinking skills.
3. **Collaborative Concept Mapping Strategy**
   Involves students in creating and organizing concept maps collectively to visualize relationships between ideas and improve understanding of complex topics.
4. **Real-Time Feedback Strategy**
   Provides immediate responses to students' performance during the learning process, helping them identify strengths and areas for improvement.
5. **Feedback Loop Strategy**
   Focuses on continuous exchange of feedback between instructor and students to enhance learning outcomes and ensure understanding.
6. **Discussion and Opinion Exchange Strategy**
   Encourages open dialogue, debate, and sharing of perspectives, which helps students develop analytical thinking and communication skills.
7. **Information Presentation Strategy**
   Relies on structured delivery of content through lectures, presentations, and visual aids to ensure clear understanding of key concepts.
8. **Training and Scientific Updates Strategy**
   Emphasizes practical training and exposure to recent scientific developments, enabling students to stay up to date with advancements in the field

N. Knowledge and Understanding

1- Identify Major Microorganisms
Recognize the main groups of microorganisms, including bacteria, viruses, fungi, and protozoa, and understand their general characteristics.

2- Understand Microbial Structure and Classification
Describe the morphology, structure, and classification of medically important microorganisms.

3- Explain Microbial Physiology and Growth
Understand the basic principles of microbial metabolism, growth requirements, and environmental factors affecting their survival.

4- Understand Pathogenesis
Explain how microorganisms cause disease, including mechanisms of infection, virulence factors, and host–pathogen interactions.

5- Recognize Clinical Manifestations
Identify the signs and symptoms of common infectious diseases and relate them to specific pathogens.

6- Understand Epidemiology
Describe the patterns, transmission, and distribution of infectious diseases within populations.

7- Know Diagnostic Methods
Understand laboratory techniques used for the detection and identification of microorganisms.

8- Understand Prevention and Control
Explain methods of infection prevention and control, including sterilization, disinfection, vaccination, and antimicrobial therapy.

9- Understanding systematic bacteriology

10- Understanding immune system

O. Subject-Specific Skills

1- **Perform Basic Microbiological Techniques**
Conduct essential laboratory procedures such as specimen collection, staining (e.g., Gram staining), culturing, and microscopic examination safely and accurately.

2- **Handle and Process Clinical Samples**
Apply proper methods for collecting, transporting, and processing clinical specimens to ensure reliable diagnostic results.

3- **Identify Microorganisms**
Use appropriate laboratory methods and biochemical tests to identify different types of microorganisms.

4- **Apply Aseptic Techniques**
Demonstrate proper aseptic and sterilization techniques to prevent contamination and ensure laboratory safety.

5- **Interpret Laboratory Results**
Analyze and interpret microbiological test results and correlate them with clinical findings.

6- **Implement Infection Control Measures**
Apply standard precautions and infection control practices in laboratory and healthcare settings.

7- **Use Laboratory Equipment**
Operate common microbiology laboratory instruments correctly and efficiently.

8- Follow Safety Procedure

P. Teaching and Learning Methods

-Enhancing Motivation for Learning
To raise students' motivation in its various forms, including **intrinsic motivation**, **social motivation**, and **achievement motivation**, in order to promote active engagement in the learning process.

-Encouraging Self-Directed and Independent Learning
To support students in taking responsibility for their own learning, developing autonomy, and acquiring the ability to monitor and evaluate their academic progress effectively.

-Promoting Collaborative Curriculum Planning
To create opportunities for applying a collaborative approach in curriculum planning, encouraging cooperation among faculty members to identify gaps, avoid unnecessary repetition, and improve course design.

-Supporting Informed Decision-Making
To assist students in understanding that decisions related to curricula and the educational environment should be **rational, evidence-based, and well-informed**.

-Fostering Continuous Improvement
To promote a culture of follow-up, evaluation, and continuous improvement in both teaching and learning

processes.

-Ensuring Accountability and Quality Assurance
To help students appreciate the importance of accountability and maintaining the quality of academic programs.

G. Evaluation Methods

- Daily Quizzes
- Written and Oral Exams
- Reports and Assignments
- Classroom Discussions and Participation

H. Thinking Skills

1- **Analytical Thinking**
Ability to analyze scientific data and information, break down complex microbiological concepts, and understand relationships between causes and effects.

2- **Critical Thinking**
Developing the capacity to evaluate evidence, question assumptions, and make logical, well-reasoned judgments in scientific contexts.

3- **Problem-Solving Skills**
Ability to identify problems, especially in diagnosing infectious diseases, and propose appropriate and effective solutions.

4- **Creative Thinking**
Encouraging innovation and the generation of new ideas when approaching scientific questions or laboratory challenges.

5- **Decision-Making Skills**

e. General and Transferable Skills

1- Communication Skills
Ability to communicate effectively in both written and oral forms, including presenting scientific information clearly and participating in academic discussions.

2- Critical Thinking and Problem-Solving
Developing the ability to analyze information, evaluate evidence, and solve problems related to microbiology and health sciences.

3- Teamwork and Collaboration
Enhancing the ability to work efficiently within a group, share responsibilities, and contribute to achieving common goals.

4- Self-Directed Learning
Building the capacity for independent learning, time management, and continuous self-improvement.

10. Course Structure : Theory					
Weeks	**Hours**	**Required Learning Outcomes**	**Unit Name / Course or Topic**	**Learning Methods**	**Evaluation Method**
١-2	2	Introduction to general bacteriology	General bacteriology. History and scope	-Enhancing Motivation for Learning-Encouraging Self Directed and Independent Learning-Supporting Informed Decision-	Daily Quizzes
3-4	4	Demonstrate knowledge of major groups of microorganisms, including bacteria.	Morphology of bacteria; Nutritional requirement of bacteria	=	• Written and Oral Exams
5-6	4	Understand the structure classification, and characteristics of pathogenic microorganisms	Bacterial metabolism; Infection, Classification, Bacterial & viral infections	=	• Reports and Assignments
7-13	14	Understanding Systematic bacteriology	Systematic bacteriology Staphylococcus, Neisseria, corynebacteria, mycobacteria, bacillus, clostridia Corynebacteria, Mycobacteria; Bacillus; & Clostridium	=	• Classroom Discussions and Participation
14	2	Understanding Systematic bacteriology	Enterobacteriaceae, Salmonella, E. coli, shield	=	Daily Quizzes
15	2	=	Pseudomonas	=	• Written and Oral Exams
16	2	=	Vibrio	=	• Reports and Assignments
17	2	=	Rubella	=	• Classroom Discussions and Participation
18	2	=	Hemophiles	=	Daily Quizzes
١9	2	==	Bordetelia	=	• Written and Oral Exams

20	**2**		Spirochetes	=	• Reports and Assignments
21	**2**		Rickettsia	=	• Classroom Discussions and Participation
22	**2**		Chlamydia and mycoplasma	=	
23	**2**		Immunology, immunity	=	• Written and Oral Exams
24	**2**		Antigens	=	• Reports and Assignments
25	**2**		Antibodies; immunoglobulin	=	• Classroom Discussions and Participation
26	**2**			=	Daily Quizzes
27	**2**		Antigen and Antibody reaction, The complement system	=	• Written and Oral Exams
28	**2**		Structure and function of immune system The immune response	=	• Reports and Assignments
29	**2**		Hypersensitivity	=	• Classroom Discussions and Participation
30	**2**		Some important virus diseases, Hepatitis B	=	Daily Quizzes

11. Course Structure : practical

Weeks	Hours	Required Learning Outcomes	Unit Name / Course or Topic	Learning Methods	Evaluation Method
١-2	2	Introduction to general bacteriology	General bacteriology. History and scope	-Enhancing Motivation for Learning-Encouraging Self Directed and Independent Learning-Supporting Informed Decision-	Daily Quizzes
3-4	4	Demonstrate knowledge of major groups of microorganisms, including bacteria.	Morphology of bacteria; Nutritional requirement of bacteria	=	• Written and Oral Exams
5-6	4	Understand the structure classification, and characteristics of pathogenic microorganisms	Bacterial metabolism; Infection, Classification, Bacterial & viral infections	=	• Reports and Assignments
7-13	14	Understanding Systematic bacteriology	Systematic bacteriology Staphylococcus, Neisseria, corynebacteria, mycobacteria, bacillus, clostridia Corynebacteria, Mycobacteria; Bacillus; & Clostridium	=	• Classroom Discussions and Participation
14	2	Understanding Systematic bacteriology	Enterobacteriaceae, Salmonella, E. coli, shield	=	Daily Quizzes
15	2	=	Pseudomonas	=	• Written and Oral Exams
16	2	=	Vibrio	=	• Reports and Assignments
17	2	=	Rubella	=	• Classroom Discussions and Participation
18	2	=	Hemophiles	=	Daily Quizzes
١9	2	=	Bordetelia	=	• Written and Oral Exams

20	**2**	=	Spirochetes	=	• Reports and Assignments
21	**2**	=	Rickettsia	=	• Classroom Discussions and Participation
22	**2**	=	Chlamydia and mycoplasma	=	
23	**2**	=	Immunology, immunity	=	• Written and Oral Exams
24	**2**	=	Antigens	=	• Reports and Assignments
25	**2**	=	Antibodies; immunoglobulin	=	• Classroom Discussions and Participation
26	**2**	=		=	Daily Quizzes
27	**2**	=	Antigen and Antibody reaction, The complement system	=	• Written and Oral Exams
28	**2**	=	Structure and function of immune system The immune response	=	• Reports and Assignments
29	**2**	=	Hypersensitivity	=	• Classroom Discussions and Participation
30	**2**	=	Some important virus diseases, Hepatitis B	=	Daily Quizzes

12. Infrastructure

Required Readings: 1- **Prescott's Microbiology** – A comprehensive resource covering fundamental and applied aspects of microbiology. **- Medical Microbiology by Patrick R. Murray et al.** – Provides detailed coverage of clinical microbiology and diagnostic methods.	**References:** 1-**Jawetz, Melnick & Adelberg's Medical Microbiology** – A key reference for understanding pathogenic microorganisms and infectious diseases. **2- Bergey's Manual of Systematic Bacteriology by John G. Holt (Editor); Noel R. Krieg (Editor)** **3-Biochemical Tests for Identification of Medical Bacteria,** **4-Mac McFadden Lippincott Williams & Wilkins** **5-Sherris Medical Microbiology, Seventh Edition**
Special Requirements (Workshops, Journals, Software, Websites): 1-Participation in practical workshops related to **microbiological techniques and laboratory safety**. *2-Journal of Medical Microbiology* 3-*Clinical Microbiology Reviews* *4-Power point and excel* *5-* World Health Organization (WHO) 6- Centers for Disease Control and Prevention (CDC)	**Electronic Websites:** 1- World Health Organization (WHO) – Provides global health information, infectious disease updates, and guidelines. 2- Centers for Disease Control and Prevention (CDC) – Offers comprehensive resources on infectious diseases, prevention, and control measures. 3- National Institutes of Health (NIH) – Includes access to biomedical research, publications, and health information. **4-** PubMed – A database for searching scientific articles and medical research papers.
Social Services (Guest Lectures, Professional Training, Field Studies, Others) 1-Arranging visits to **hospitals, medical laboratories, and research centers** to observe microbiological practices in real settings. 2-Allowing students to connect theoretical knowledge with practical applications.	**Organizing workshops and courses for graduates:** 1-**Infection Control Training:** Principles of sterilization, disinfection, and biosafety procedures. 2- **Research Skills Courses:** Scientific writing, data analysis, and research methodology. 3-**Technology-Based Training:** Use of modern laboratory equipment and digital tools. 4-**Career Development Courses:** Communication skills, CV writing, and interview preparation.

3-Community Awareness Activities *(Participation in awareness campaigns about infectious diseases and their prevention in the community.)*	

13.	
Prerequisites	
Minimum Number of Students	**10**
Maximum Number of Students	**400**

Ministry of Higher Education and Scientific Research

Al-Amal College for Medical Specialties

Department of Community Health – First Year

Course Description Form

Review of the Performance of Higher Education Institution (Academic Program Review)

This course description provides a summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, proving whether they have made the most of the available learning opportunities. It must be linked to the program description.

Basic Course Information	
Educational Institution	Ministry of Higher Education for Medical Sciences / College of Specialized Medical Sciences / Department of Anesthesia Techniques
University Department / Center	Department of Community Health Techniques
Course Name / Code	Anatomy – ATU13ANT122C
Programs in which it is included	Bachelor of Community health – First Year
Available Forms of Attendance	Face-to-Face (Theoretical + Laboratory)
Semester / Year	Second Semester / First Year
Total Number of Study Hours	30 Hours
Date of Preparing this Description	1 – 4 – 2026

Course Objectives

This course aims to provide first-year community health Department students with fundamental knowledge in anatomy and its clinical implications in community health practice. The course seeks to achieve the following objectives:

1. Introduce students to the basic concepts of anatomy and the classification of anatomy.
2. To introduce the student to the body's organs and tissues.
3. To identify the parts that make up each organ.
4. To distinguish the tissues that comprise each organ.

Learning Outcomes, Teaching & Learning Methods, and Evaluation

A – Knowledge and Understanding

1. The student defines and classifies anatomy parts.
2. The student explains the functional structure of different anatomical body parts.

Teaching & Learning Methods: Theoretical lectures, presentations, case-based learning, classroom discussions.
Evaluation Methods: Written tests (objective and essay), midterm exam, final exam.
B – Subject-Specific Skills
1. The student performs basic anatomical examinations including demonstration instruments.
2. The student applies the exam clinically.
3. The student distinguishes between types of different body anatomy parts.
Teaching & Learning Methods: Practical laboratory sessions, microscope training, hands-on sterilization technique drills.
Evaluation Methods: Practical laboratory assessment (OSCE),
C – Thinking Skills
1. The student analyzes hospital-acquired infection cases and proposes prevention measures.
2. The student evaluates the effectiveness of infection control protocols in the anesthesia environment.
Teaching & Learning Methods: Problem-Based Learning (PBL), case studies, group discussions.
Evaluation Methods: Applied tests, clinical case analysis, short research projects.
D – General and Transferable Skills
1. The student demonstrates the ability to work within a multidisciplinary medical team.
2. The student shows skills in scientific communication and medical report writing.
3. The student develops self-learning and scientific research abilities in anatomy.

Weekly Course Structure					
Week	**Hours**	**Unit Name / Topic**	**Required Learning Outcomes**	**Learning Method**	**Evaluation Method**
1	2	CNS structures and functions	A1	Lecture	Lecture + presentation + Laboratory+quiz
2	2	PNS spinal nerves	A1, A2	Lecture	Lecture + presentation + Laboratory+quiz

3	2	Sensory and motor nerve system	A2	Lecture	Lecture + presentation + Laboratory+quiz
4	2	GIT system	B1	Lecture	Lecture + presentation + Laboratory+quiz
5	2	Salivary glands structures	A2, A3	Lecture	Lecture + presentation + +quiz Laboratory
6	2	Liver anatomy structures and functions	A2, A3	Lecture	Lecture + presentation + Laboratory+quiz
7	**2**	**Mid-term exam 1**	**Students understand questions and answer**	**Attendant actual exam**	**Exam**
8	2	Urinary system	A1, A3	Lecture	Midterm Exam
9	2	Muscular system	A3, C1	PBL + Discussion	Case Analysis
10	2	Endocrine glands	B2, C2	Lecture + Lab	Performance Obs.
11	2	Skeletal anatomy	B2	Practical Lab	OSCE
12	2	Male reproductive system	A4	Lecture	Objective Test
13	2	Female reproductive system	A4, C1	Case Study	Group Discussion
14	2	Special sense anatomy	B3, D1	Lecture + Role-Play	Written Report
15	2	Development and inheritance	C2, D2, D3	Presentation + Discussion	Research Project

Course Infrastructure	
Core Textbooks / Course Books	Clinical anatomy. 11 th ed. Richard. Snell, 2014
Required Readings / References	- Nature - Science E. books and websites – WHO official resources.
Special Requirements	Equipped anatomy laboratory, demonstration pictures and instruments

Electronic Websites	College official website + Internal e-Learning Management System (LMS)
Social Services	Guest lectures from medical anatomy specialists; field visits to department laboratories.

Admission & Enrollment Requirements	
Prerequisites	High School anatomy, First-Year Chemistry
Minimum Number of Students	15 Students
Maximum Number of Students	40 Students

Grade Distribution & Assessment	
Percentage	**Assessment Type**
20%	Coursework (Quizzes + Reports)
10%	Practical Laboratory Assessment
30%	Midterm Examination
40%	Final Examination (Theory + Practical)
Total: 100%	

Signatures	
Name of the Instructor	Ass.Lect. Maher Jawad
Head of Department	ASS.Lect. Dr .Asraa Saed
Dean of the College	Prof.Dr.Mufeed Jaleel Awadh