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 of Aesthetic and Laser Technical Department

2026

Introduction:

The Aesthetic and Laser Technical Department represents a recent and innovative addition to the Al-Furat Al-Awsat Technical University/Najaf Technical Institute, effectively merging medical and aesthetic disciplines. The department aims to prepare highly qualified and skilled technical personnel proficient in utilizing state-of-the-art aesthetic and laser technologies, to address the growing demands of the public and private sectors. the department welcomed its inaugural student cohort in the academic year 2024-2025, in direct response to the increasing demand for this specialization in the labour market.

The department delivers a comprehensive and integrated curriculum that combines theoretical knowledge with practical application. This includes the study of fundamental medical sciences such as anatomy, histology, and pathology, alongside intensive practical training in the diverse applications of laser technologies.

Furthermore, the program emphasizes equipping students with advanced skills in utilizing laser technologies for various aesthetic procedures, including hair removal, skin rejuvenation, and the treatment of pigmentation irregularities and scars. It also ensures that students are familiarized with the latest developments and knowledge in the field of non-surgical aesthetic procedures, such as various types of cosmetic injections. The department strives to produce distinguished graduates capable of providing comprehensive and integrated aesthetic healthcare while adhering to the highest standards of safety and professional quality.

Through this integrated program, the department contributes to enhancing the level of aesthetic care services within the community, offering safe and effective therapeutic solutions, and consequently, meeting the growing needs in the field of non-surgical aesthetics.

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.

Academic Program Description

University Name: Al-furat Al-Awasat University

Faculty/Institute: Najaf Technical Institute

Scientific Department: Aesthetic and Laser Department

Academic or Professional Program Name: Diploma in Aesthetic and Laser Techniques

Final Certificate Name: Technical Diploma

Academic System: Four Semesters

Description Preparation Date: 17.02.2026

File Completion Date: 23.02.2026

Signature:

Head of Department Name:

Asst.Prof. Mohammed Najeh Nemah

Date: 24.02.2026

Signature:

Scientific Associate Name:

Asst.Prof. Salah Mehdi Salih

Date:

Department: Director of the Quality Assurance and University Performan

Dr. Zaid Abdulkareem ALhamidawi

Date:

Signature:

Approval of the Dean

Prof. Dr. Haider Hassan Abd Hussein

1. Program Vision

The Aesthetic and Laser Technical Department aspires to be a leading center in the preparation and qualification of professional personnel in non-surgical aesthetic techniques and laser treatments, in accordance with the latest global standards. This vision aims to meet the demands of the labour market and promote a culture of beauty and sustainable health.

2. Program Mission

Excellence in providing distinguished education and training that keeps pace with the latest developments in the field of non-surgical cosmetic medicine and laser treatment, and enhancing partnership with business owners.

3. Program Objectives

1. Train students in the utilization of state-of-the-art laser devices for aesthetic surgery and skincare, emphasizing the applications of modern technology.
2. Elevate the students' scientific understanding and ensure awareness of rapid advancements in the field of non-surgical aesthetic procedures.
3. Provide advanced training programs and specialized courses designed to enhance the scientific and professional knowledge of both teaching staff and students.
4. Promote knowledge of pharmaceutical cosmetic products and their application methods in skincare for all skin types, while empowering students with skills in hair health care and techniques for enhancing skin appearance.
5. Graduate highly skilled and competent technical specialists with expertise in laser aesthetic techniques and their application in treating dermatological conditions and performing non-surgical aesthetic procedures.

4. Program Accreditation

Does the program have program accreditation? And from which agency?
Program accreditation has not been pursued because there are no graduates in the department

5. Other external influences

Is there a sponsor for the program?
No

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	**7**	**14**	**10.9%**	**-**

Institute Requirements	**7**	**27**	**19.7%**	**-**
Department Requirements	**14**	**94**	**68.6%**	**-**
Summer Training	**1**	**2**	**1.5%**	**-**
Other				

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

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
First year/First semester	-	Anatomy and Histology	**2**	**4**
First year/First semester	-	Medical Biology	**2**	**4**
First year/First semester	-	Laser Principles	**2**	**6**
First year/First semester	-	Electrical Principles	**2**	**4**
First year/First semester	-	Computer Applications	**1**	**1**
First year/First semester	-	English	**2**	**0**
First year/First semester	-	Human Rights	**2**	**0**

8. Expected learning outcomes of the program

Knowledge	
Learning Outcomes 1	Learning Outcomes Statement 1
Skills	
Learning Outcomes 2	Learning Outcomes Statement 2
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	Learning Outcomes Statement 4
Learning Outcomes 5	Learning Outcomes Statement 5

9. Teaching and Learning Strategies

1. Classroom teaching through theoretical and scientific lectures
2. Interactive lessons: Using interactive methods such as group discussions, cooperative activities, and practical exercises to encourage active student participation
3. Preparation of reports and scientific research

10. Evaluation methods

Oral examinations (Viva voce), Written examinations, Midterm exams (Periodic exams), Daily/Continuous assessment (Formative assessment) and Final exams (End-of-term exams)

11.Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
	3	10			9	4

Professional Development

Mentoring new faculty members

Organizing seminars, workshops, and training sessions to introduce new staff to the vision, mission, and objectives of the department, institution, and college, as well as to professional ethics and conduct.

Professional development of faculty members

Faculty members in the department are guided regarding conducting reputable research, publishing in credible journals, participating in scientific conferences, and organizing ongoing workshops and seminars covering both general and specialized fields relevant to the department's academic staff.

12.Acceptance Criterion

Students admitted through the central admission channel for the biological sciences branch and who meet the minimum admission threshold.

13.The most important sources of information about the program

Visit the university or institute website to review the Laser and Cosmetic Techniques program, where you can obtain detailed information about the courses, admission requirements, costs, duration, important dates, practical training, and academic staff

14.Program Development Plan

1. Analyze the Program's Current Situation
   - Review current curricula and identify strengths and weaknesses.
2. Update and Develop Curricula
   - Introduce new courses such as advanced laser techniques, non-surgical cosmetic treatments, and cosmetic clinic management.
3. Develop Faculty Skills
   - Organize workshops and training courses on the latest cosmetic and laser techniques.
   - Encourage participation in local and international conferences.
4. Strengthen Partnerships with the Labor Market
   - Sign training agreements with cosmetic and laser centers and clinics.
5. Develop Infrastructure and Laboratories
   - Upgrade laser devices and cosmetic tools in laboratories.
6. Evaluate and Develop Student Performance
   - • Use various assessment methods (practical tests, applied projects, presentations).

Program Skills Outline														
				Required program Learning outcomes										
Year/Level	**Course Code**	**Course Name**	**Basic or optional**	**Knowledge**				**Skills**				**Ethics**		
				A 1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**
First year/First semester		Anatomy and Histology	Basic	✓	✓	✓	✓	✓		✓		✓		✓	✓
		Medical Biology	Basic	✓	✓	✓		✓	✓	✓		✓		✓	✓
First year/First semester		Laser Principles	Basic	✓	✓		✓	✓	✓	✓				✓	✓
		Electrical Principles	Basic		✓		✓	✓	✓	✓				✓	
First year/First semester		Computer Applications	Basic	✓			✓	✓	✓	✓	✓		✓	✓	
		English	Basic	✓							✓		✓		✓
First year/First semester		Human Rights	Basic	✓	✓	✓	✓	✓		✓		✓		✓	✓
		Physiology	Basic	✓	✓	✓	✓	✓		✓		✓		✓	✓
First year/Second semester		Dermatology	Basic	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓

First year/Second semester		Dermatology	Basic	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓
First year/Second semester		Laser Physics Applications	Basic	✓	✓	✓		✓	✓	✓		✓			✓
First year/Second semester		General Chemistry	Basic	✓	✓		✓	✓	✓	✓	✓		✓	✓	
First year/Second semester		Medical Terminology	Basic	✓	✓	✓		✓	✓			✓		✓	✓
First year/Second semester		Professional Safety	Basic	✓					✓			✓			✓
First year/Second semester		Arabic Language	Basic	✓				✓				✓	✓		✓

Program Skills Outline														
				Required program Learning outcomes										
Year/Level	**Course Code**	**Course Name**	**Basic or optional**	**Knowledge**				**Skills**				**Ethics**			
				A 1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**
Second year/First semester		Medical Physics	Basic	✓	✓	✓	✓	✓		✓		✓		✓	✓
		First Aid	None Basic	✓	✓	✓		✓	✓	✓		✓		✓	✓
Second year/First semester		Aesthetic Managements centers	Basic	✓	✓		✓	✓	✓	✓				✓	✓
		None Surgical treatment	Basic		✓		✓	✓	✓	✓				✓	
Second year/First semester		Dermatology	Basic	✓			✓	✓	✓	✓	✓		✓	✓	
		Research project	Basic	✓							✓		✓		✓
Second year/First semester		Arabic Language (II)	Basic	✓	✓	✓	✓	✓		✓		✓		✓	✓
Second year/First semester		Dermatology	Basic	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓

First year/Second semester		Dermatology	Basic	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓
First year/Second semester		Laser Physics Applications	Basic	✓	✓	✓		✓	✓	✓		✓			✓
First year/Second semester		General Chemistry	Basic	✓	✓		✓	✓	✓	✓	✓		✓	✓	
First year/Second semester		Medical Terminology	Basic	✓	✓	✓		✓	✓			✓		✓	✓
First year/Second semester		Professional Safety	Basic	✓					✓			✓			✓
First year/Second semester		Arabic Language	Basic	✓				✓				✓	✓		✓

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

Course Description of Anatomy and Histology

1. Course Name:
Anatomy and Histology
2. Course Code:
-
3. Semester / Year:
First semester/first Year
4. Description Preparation Date:
27.05.2025
5. Available Attendance Forms:
6. Number of Credit Hours (Total) / Number of Units (Total)
6/6
7. Course administrator's name (mention all, if more than one name)
Name: Dr.Rabab Ali Shnawa Email: rababali.inj@atu.edu.iq
8. Course Objectives

Course Objectives	This course aims to Introducing the student to the body parts and tissues, and familiarizing them with the specialized functions of the organs and tissues.

9. Teaching and Learning Strategies

Strategy	- **interactive Learning** **-Using demonstrations and 3D models to illustrate the structure of tissues and body organs.** **-Practical demonstrations in the laboratory, such as dissecting tissue samples using microscopes.**

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	knowledge and understanding	Introduction, Anatomical terms.	Theoretic& practical	Written test
2	6	knowledge and understanding	Body cavities and its organs.	Theoretic& practical	Written Test
3	6	knowledge and understanding	Superficial anatomy of human body.	Theoretical & practical	Written test
4	6	knowledge and understanding	Human body tissues; types and characteristic	Theoretical & practical	Written test
5	6	knowledge and understanding	Skin anatomy and its functions skin color	Theoretical & practical	Written test
6	6	knowledge and understanding	General skeletal stricture (Skull, and neck).	Theoretical & practical	Written test
7	6	knowledge and understanding	Vertebral column stricture, numbers and its function.	Theoretical & practical	Written test

8	6	knowledge and understanding		Theoretical & practical	Written test
9	6	knowledge and understanding	Anatomy of heart, wall, valve and its function	Theoretical & practical	Written test
10	6	knowledge and understanding	Structure of blood vessels wall arteries, veins and capillaries	Theoretical & practical	Written test
11	6	knowledge and understanding	Lymphatic system – lymph glands.	Theoretical & practical	Written test
12	6	knowledge and understanding	Respiratory system – upper respiratory tract.	Theoretical & practical	Written test
13	6	knowledge and understanding	Respiratory system- lover respiratory tract.	Theoretical & practical	Written test
14	6	knowledge and understanding	Alveoli- lungs- pleural activity	Theoretical & practical	Written test
15	6	knowledge and understanding	Upper and lower limb	Theoretical & practical	Written test

11.Course Evaluation

Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
5	5	5	10	15

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Anatomy & Physiology: The Unity of Form and Function Histology: A Text and Atlas
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Human anatomy atlas 2025 completing 3D human body

Course Description of Medical Biology

13.Course Name:
Medical Biology
14.Course Code:
-
15.Semester / Year:
first semester/first Year
16.Description Preparation Date:
6.5.2025
17.Available Attendance Forms:
18.Number of Credit Hours (Total) / Number of Units (Total)
6/6
19.Course administrator's name (mention all, if more than one name)
Name: Aseel Ibrahim Musailem Email: aseelibrahim.inj@atu.edu.iq
20.Course Objectives

Course Objectives	This course aims Understand the fundamental functions and mechanisms of human body systems. Apply physiological principles to explain how the body maintains internal balance and respond stimuli.

21.Teaching and Learning Strategies

Strategy	Utilize interactive lectures, multimedia tools, and demonstrations. Encourage active learning through group discussions, case-based learning, and practical laboratory sessions**..**

22. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	knowledge and understanding	Introduction to biology, the cells, prokaryotic and eukaryotic cells, animal and plant cell	Theoretic& practical	Written test
2,3	6	knowledge and understanding	The Structure of cells, types, shape and size Golgi apparatus Vacuoles, Lysosomes	Theoretic& practical	Written Test
4,5	6	knowledge and understanding	Movement in and out of cells: diffusion , osmosis, active transport.	Theoretical & practical	Written test
6	6	knowledge and understanding	Cell division: Amitosis, Mitosis and Meiosis	Theoretical & practical	Written test
7	6	knowledge and understanding	Classification of microorganisms (bacteria, viruses)	Theoretical & practical	Written test
8		knowledge and understanding	Classification of microorganisms(fungi, parasites)	Theoretical & practical	Written test

9	6	knowledge and understanding	Structure and function of microbes	Theoretical & practical	Written test
10	6	knowledge and understanding	DNA and RNA: Structure function ,	Theoretical & practical	Written test
11	6	knowledge and understanding	DNA Replication and transcription	Theoretical & practical	Written test
12	6	knowledge and understanding	Protein biosynthesis	Theoretical & practical	Written test
13	6	knowledge and understanding	Immunology Immune system components: innate and adaptive immunity Antigens, antibodies, and immune response	Theoretical & practical	Written test
14	6	knowledge and understanding	Immunological disorders (autoimmunity, immunodeficiency) Vaccination and immunotherapy Immunological techniques, flow cytometry	Theoretical & practical	Written test
15	6	knowledge and understanding	Biochemistry Biomolecules: carbohydrates, proteins, lipids, nucleic • acids	Theoretical & practical	Written test

23. Course Evaluation

	Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
	5	5	5	10	15

24. Learning and Teaching Resources

Required textbooks (curricular books, if ar	
Main references (sources)	Medical Cell Biology Book • Third Edition • 2007
Recommended books and references (scientific journals, reports...)	Basics of Medical Molecular Biology
Electronic References, Websites	Biology & Medicine

Course Description of Laser Principles

25.Course Name:
Laser Principles
26.Course Code:
-
27.Semester / Year:
First semester/first Year
28.Description Preparation Date:
15/03/2025
29.Available Attendance Forms:
30.Number of Credit Hours (Total) / Number of Units (Total)
8/8
31.Course administrator's name (mention all, if more than one name)
Name: Dr. Jumana Kareem Buraihi Al-Musawi Email: Jumana.kareem.inj@atu.edu.iq
32.Course Objectives

Course Objectives	This course aims to provide students with a comprehensive understanding of the nature of lasers, their technologies, and various applications, enabling them to use this knowledge effectively and safely in diverse fields such as medicine, industry, and cosmetology**.**

33.Teaching and Learning Strategies

Strategy	• **Interactive Learning**: Utilizing participatory activities with students. • **Practical Application**: Applying professional terms and expressions during lectures and conducting hands-on experiments in the laboratory. • **Technology-Based Learning**: Using audiovisual materials, interactive applications, and educational videos to enhance comprehension and understanding. • **Self-Directed Learning**: Encouraging students to explore the characteristics and applications of lasers. • **Use of Laser Device Demonstrations**: Explaining device structures and operational mechanisms in accordance with course content. • **Laboratory Demonstrations**: Conducting practical demonstrations in the lab.

34. Course Structure

Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**

1	8	knowledge and understanding	The electromagnetic spectrum , units	Theoretic& practical	Written test
2	8	knowledge and understanding	Laser process	Theoretic& practical	Written Test
3	8	knowledge and understanding	Absorption of electromagnetic Radiation	Theoretic& practical	Written test
4	8	knowledge and understanding	Population inversion.	Theoretic& practical	Written test
5	8	knowledge and understanding	Einstein Coefficients. Lasing Processes , Three- and Four-Level Lasers.	Theoretic& practical	Written test
7+6	8	knowledge and understanding	The Optical Resonator, Basic components of a Laser system.	Theoretic& practical	Written test
9+8	8	knowledge and understanding	Light and Blackbody Emission , Energy Levels, Radiative and Nonradioactive Transitions in Molecules.	Theoretic& practical	Written test
12+11+10	8	knowledge and understanding	Properties of Laser Radiation. Laser Gain. Linewidth. Thresholds for Lasing. Calculating Threshold Gain. Selective Pumping. CW Lasing Action. Thermal Population Effects.	Theoretic& practical	Written test
14+13	8	knowledge and understanding	Solid-State, Dye, and Semiconductor Lasers.	Theoretic& practical	Written test
15	8	knowledge and understanding	Gas, Chemical, Free Electron, and X-Ray Lasers	Theoretic& practical	Written test

35.Course Evaluation

Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
5	5	5	10	15

36.Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	• Laser Fundamentals – by William T. Silfvast. • Principles of Lasers – by Orazio Svelto. • Optics – by Eugene Hecht. • Introduction to Quantum Mechanics – by Da Griffiths

Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	• Coursera • edX • YouTube- NPTEL • MIT OpenCourseWare

Course Description of Electrical Principles

37.Course Name:	
Electrical Principles	
38.Course Code:	
-	
39.Semester / Year:	
First semester/first Year	
40.Description Preparation Date:	
15.03.2024	
41.Available Attendance Forms:	
Attendance	
42.Number of Credit Hours (Total) / Number of Units (Total)	
6/6	
43.Course administrator's name (mention all, if more than one name)	
Name: MSc. Atheer Hasan Atiyah Email: Atheer.atiyah@atu.edu.iq	
44.Course Objectives	
Course Objectives	This course aims to provide students with basic electrical concepts principles, enabling them to understand how to analyze electrical syste effectively and safely.
45.Teaching and Learning Strategies	
Strategy	1. Interactive Lecture • Integrate theoretical explanation using presentations with stimulating questions and brainstorming. • Use visual aids such as illustrative electrical circuits and videos. 2. Project-Based Learning • Assign students to design simple projects, such as a lighting circuit or an electrical conversion circuit. 3. Hands-on Lab Sessions • Provide a laboratory environment to apply concepts such as Ohm's Law, electrical power, and series and parallel connections. • Link practical results to theoretical concepts to deepen understanding. 4. Demonstrations • Conduct experiments in front of (or with students) to illustrate electrical phenomena such as electromagnetic induction or the effect of voltage. 5. Collaborative Learning

	• Form small groups to discuss concepts or conduct experiments, and present their results to the class. 6. Self-Directed Learning • Encourage students to use electrical simulators • Train students to document experimental steps, drawings, calculations, and personal notes.

46. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	knowledge, understanding and Practical Skills	Introduction - Difference between Circuit Theory and Field Theory	Theoretical and practical	Written tests Practical tests Laboratory reports
2	6	knowledge, understanding and Practical Skills	Basics of Network Elements	Theoretical and practical	Written Test Practical tests Laboratory reports
3	6	knowledge, understanding and Practical Skills	Resistance and Resistivity, Ohm's Law and Inductance, Capacitance	Theoretical and practical	Written test Practical tests Laboratory reports
4	6	knowledge, understanding and Practical Skills	Review of Kirchhoff's Laws, Circuit Analysis - Nodal and Mesh	Theoretical and practical	Written test Practical tests Laboratory reports
5	6	knowledge, understanding and Practical Skills	Linearity and Superposition, Source Transformations, Thévenin and Norton Equivalents	Theoretical And practical	Written test Practical tests Laboratory reports
6	6	knowledge, understanding and Practical Skills	Review of Inductor and Capacitor as Circuit Elements, Source-free RL and RC Circuits, Transient Response	Theoretical And practical	Written test Practical tests Laboratory reports
7	6	knowledge, understanding and Practical Skills	Mid-term Exam + Unit-Step Forcing, Forced Response, the RLC Circuit	Theoretical and practical	Written test Practical tests Laboratory reports
8	6	knowledge, understanding and Practical Skills	Sinusoidal Forcing, Complex Forcing, Phasors, and Complex Impedance, Sinusoidal Steady State Response	Theoretical and practical	Written test Practical tests Laboratory reports
9	6	knowledge, understanding	Nodal and Mesh Revisited, Average	Theoretical and	Written test Practical tests

		and Practical Skills	Power, RMS, Introduction to Polyphase Circuits	practical	Laboratory reports
10	6	knowledge, understanding and Practical Skills	Mutual Inductance, Linear and Ideal Transformers, Circuits with Mutual Inductance	Theoretical and practical	Written tests Practical tests Laboratory reports
11	6	knowledge, understanding and Practical Skills	Frequency Response of Series/Parallel Resonances, High-Q Circuits	Theoretical and practical	Written tests Practical tests Laboratory reports
12	6	knowledge, understanding and Practical Skills	Complex Frequency, s-Plane, Poles and Zeros, Response Function, Bode Plots	Theoretical and practical	Written tests Practical tests Laboratory reports
13-15	18	knowledge, understanding and Practical Skills	Two Port Networks, Admittance, Impedance, Hybrid, and Transmittance Parameters	Theoretical and practical	Written tests Practical tests Laboratory reports

47.Course Evaluation

Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
5	5	5	10	15

48.Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Boylested R.L. , "Electronic Devices and Circuit Theory", 11th Ed., Prentice – Hall Int Pub
Recommended books and references (scientific journals, reports...)	Donald A.N. , "Electronic Circuit Analysis and Design" , Mc Graw – Hill
Electronic References, Websites	

Course Description of Computer Applications

49.Course Name:
Computer Applications
50.Course Code:
-
51.Semester / Year:
First semester/first Year
52.Description Preparation Date:
15.03.2024
53.Available Attendance Forms:
54.Number of Credit Hours (Total) / Number of Units (Total)
2/2
55.Course administrator's name (mention all, if more than one name)
Name: Asst. Prof. Dr. Mohammed Najeh Nemah Email: mohammed.nemah@atu.edu.iq
56.Course Objectives

Course Objectives	The course aims to equip students with the necessary skills to prepare profession documents and reports, analyze data, and make informed decisions using effectiv computer tools, preparing them for the job market.

57.Teaching and Learning Strategies

Strategy	- Mastering content production skills: Students will learn how to create professional documents, attractive presentations, and organized spreadsheets, enabling effective communication and clear, persuasive information delivery. - Data analysis and decision-making: Students will be able to collect, organize, and analyze data using Excel, draw conclusions, and use them to make informed decisions in various fields. - Increasing productivity in the work environment: These skills will help automate repetitive tasks, improve work efficiency, and save time and effort, making students more productive in the workplace.

58. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	knowledge and understanding	Introduction to Word Program - Program interface and main parts - Creating and saving a new document - Writing and formatting text (fonts, colors, sizes, paragraphs)	Theory& Practical	Practical tests
2	2	knowledge and understanding	Page Formatting - Adjusting page margins - Changing page orientation - Adding header and footer - Using ready-made templates	Theory& Practical	Written and practical tests

3	2	knowledge and understanding	Inserting Images and Tables - Inserting and formatting images - Creating tables and adding data - Table formatting (borders, colors, merging)	Theory& Practical	Oral and practical tests
4	2	knowledge and understanding	Charts and Lists - Creating charts - Creating bulleted and numbered lists - Creating hyperlinks	Theory & Practical	Practical and oral tests
5	2	knowledge and understanding	Review and Tracking - Track changes and reviews - Adding comments - Document protection	Theory & Practical	Written and oral tests
6	2	knowledge and understanding	Advanced Features - Creating an index - Using macros (simple introduction) - Mail merge	Theory & Practical	Oral tests
7	2	knowledge and understanding	Introduction to Excel Program - Program interface and main parts - Creating and saving a new spreadsheet - Data entry and formatting	Theory & Practical	Practical and oral tests
8	2	knowledge and understanding	Functions and Calculations - Using basic functions (SUM, AVERAGE, COUNT, etc.)	Theory & Practical	Practical and oral tests
9	2	knowledge and understanding	Functions and Calculations - Performing simple and complex calculations - Cell and range references	Theory & Practical	Practical and oral tests
10	2	knowledge and understanding	Charts - Creating different types of charts (line, bar, pie, etc.) - Customizing charts	Theory & Practical	Written and oral tests
11	2	Knowledge and Understanding	Charts - Data analysis using charts	Theory & Practical	Written and oral tests
12	2	Knowledge and Understanding	Pivot Tables - Creating pivot tables - Analyzing complex data with pivot tables - Filtering and grouping data	Theory & Practical	Practical and oral tests
13	2	Knowledge and Understanding	Data Management - Sorting and filtering	Theory & Practical	Written and oral tests

			- Data validation - Data protection		
14	2	Knowledge and Understanding	Applied Projects - Integrating Word and Excel in one project (e.g., creating a sales report with tables and charts)	Theory & Practical	Practical and oral tests
15	2	Knowledge and Understanding	Applied Projects - Creating custom forms	Theory & Practical	Written and oral tests

59.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 .... etc

60.Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description of English language

61.Course Name:
English
62.Course Code:
-
63.Semester / Year:
First semester/first Year
64.Description Preparation Date:
27.05.2025
65.Available Attendance Forms:
66.Number of Credit Hours (Total) / Number of Units (Total)
2/2
67.Course administrator's name (mention all, if more than one name)
Name: Msc. Hayder Jawad Abed Email: hayderabed.inj@atu.edu.iq
68.Course Objectives

Course Objectives	This course aims to provide students with essential English language skills, focusing on fundamental grammar structures and practical communication

69.Teaching and Learning Strategies	
Strategy	**Interactive Lectures** – Engaging explanations and discussions to introduce and reinforce key grammatical concepts. **Practical Exercises** – Structured activities such as fill-in-the-blanks, sentence restructuring, and error correction to enhance understanding.

70. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-2	2	Knowledge, understanding and Memorization	Cardinal numbers/years/prices/times (in words and figures). Phonetic of alphabet letters, Punctuation. Countries/Capitals, arrange words (makes full sentence)/ arrange letters (make full)	Theoretical	Written test
3-4	2	Knowledge, understanding and Memorization	Question words (what, where, when, who, why, how, whom, whose, which). Abbreviation (short form), adjectives (and their opposite).	Theoretical	Written Test
5-6	2	Knowledge, understanding and Memorization	Simple present, Simple past, Present continuous.	Theoretical	Written test
7	2	Knowledge, understanding and Memorization	Possession (all types). Pronunciation (-s at the end	Theoretical	Written test

			of a word). Pronouns (all types).		
8-9	2	Knowledge, understanding and Memorization	Medical terminology Language of medicine Medical terms	Theoretical	Written test
10	2	Knowledge, understanding and Memorization	Spelling of medical terms Pronunciation of medical terms	Theoretical	Written test
11-12	2	Knowledge, understanding and Memorization	Suffixes, Prefixes, root	Theoretical	Written test
13	2	Knowledge, understanding and Memorization	Body structure Planes of the body	Theoretical	Written test
14	2	Knowledge, understanding and Memorization	Orientation and directional terms Body positions	Theoretical	Written test
15	2	Knowledge, understanding and Memorization	Body cavities	Theoretical	Written test

71.Course Evaluation

	Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
	5	-	5	-	20

72.Learning and Teaching Resources

Required textbooks (curricular books, if any)	English Language in a Simplified Way (Tahir Al-Bayati)
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Voice of America (VOA) Learn English

Course Description of Human Rights and Democracy

73. Course Name:
Human rights and democracy
74. Course Code:
–
75. Semester / Year:
First semester/first Year
76. Description Preparation Date:
15.4.2025
77.Available Attendance Forms:
78.Number of Credit Hours (Total) / Number of Units (Total)
2/2
79. Course administrator's name (mention all, if more than one name)
Name:D. mohammed Abul Redha nasser mohammed.nasser@atu.edu.iq
80. Course Objectives

Course Objectives	It aims to introduce the student to hu rights, their historical development, international charters and agreements stipulate them, as well as divine l including Islamic law and dom constitutions.
81. Teaching and Learning Strategies	
Strategy	•**Interactive Lectures** – Using interactive and active methods, and focusing on linking theoretical concepts to real life.. •**Practical Exercises** – Encourage critical thinking and problem solving. • **Technology-based learning**: Using audio-visual materials, interactive applications, and educational videos to improve understanding and comprehension. • **Self-learning**: Encouraging students to apply some situations that contribute to strengthening the values of tolerance, moderation, mutual respect, the use of moderate dialogues, and interaction with educational content outside the classroom.

82. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-2	2	knowledge and understanding	Human rights in ancient civilizations, with a focus on Mesopotamia. Human rights in divine laws.	Theoretical	Written test

			With a focus on Islamic law. Human rights in various schools of thought, political theories, and doctrines.		
3-4	2	knowledge and understanding	Declarations of Human Rights, Revolutions, and Constitutions (English documents, the American, French, and Russian Revolutions). International recognition of human rights since World War I (League of Nations, United Nations).	Theoretical	Written Test
5-6	2	knowledge and understanding	Regional recognition of human rights, European Convention on Human Rights of 1950, American Convention on Human Rights of 1969, African Charter on Human Rights of 1981, Arab Charter on Human Rights of 1994.	Theoretical	Written test
7	2	knowledge and understanding	Human rights in Iraqi constitutions between theory and reality.	Theoretical	Written test
8-9	2	knowledge and understanding	Human rights in the Universal Declaration of Human Rights, international and regional covenants, and national constitutions, forms of human rights and the interrelationship between them	Theoretical	Written test
10	2	knowledge and understanding	Modern human rights, the right to development, to the environment, to solidarity, the interrelationship between human rights.	Theoretical	Written test
11-12	2	knowledge and understanding	Guarantees of respect for and protection of human rights and freedoms at the national level.	Theoretical	Written test
13	2	knowledge and understanding	The concept and images of democracy	Theoretical	Written test
14	2	knowledge and understanding	The components and guarantees of democracy	Theoretical	Written test

15	2	knowledge and understanding	Mechanisms for implementing democracy and its challenges	Theoretical	Written test

83. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, dailyoral, monthly, or written exams, reports .... etc

84. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Human Rights (Dr. Hamid Hanou Human Rights, Children, a Democracy (Dr. Maher Saleh Al and others)
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	https://www.unicef.org/ar/

Course Description of Physiology

85.Course Name:
Physiology
86.Course Code:
-
87.Semester / Year:
Second semester/first Year
88.Description Preparation Date:
27.05.2025
89.Available Attendance Forms:
90.Number of Credit Hours (Total) / Number of Units (Total)
6/6
91.Course administrator's name (mention all, if more than one name)
Name: Dr.Rabab Ali Shnawa Atheer Hasan Atiyah Email: rababali.inj@atu.edu.iq Atheer.atiyah@atu.edu.iq
92.Course Objectives

Course Objectives	This course aims Understand the fundamental functions and mechanisms of human body systems. Apply physiological principles to explain how the body maintains internal balance and responds to stimuli.

93.Teaching and Learning Strategies

Strategy	Utilize interactive lectures, multimedia tools, and demonstrations to explain key physiological concepts. Encourage active learning through group discussions, case-based learning, and practical laboratory sessions.

94. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	knowledge and understanding	Introduction to physiology Cell Theory Cell Structure Cell Wall Cytoplasmic membrane	Theoretic& practical	Written test
2	6	knowledge and understanding	Cell Organelles (Structure and function) Nucleus Endoplasmic Reticulum Ribosomes Mitochondria Golgi apparatus Vacuoles, Lysosomes	Theoretic& practical	Written Test
3	6	knowledge and understanding	Nervous system Central Nervous System Peripheral Nervous System Autonomic Nervous System	Theoretical & practical	Written test
4	6	knowledge and	Muscular System Types of Muscles Structure and Function	Theoretical & practical	Written test

		understandin g	Mechanism of Contracti- on Muscle		
5	6	knowledge and understandin g	Vascular System Circulatory System (Heart, Vessels, Blood)	Theoretical & practical	Written test
6			Vascular System Lymphatic System		
7	6	knowledge and understandin g	General skeletal stricture	Theoretical & practical	Written test
8	6	knowledge and understandin g	Digestive System parts of Gastrointestinal tract Function each Part. Accessory Organs (Pancreas, Liver, Bladder).	Theoretical & practical	Written test
9	6	knowledge and understandin g	Urinary System Parts of Urinary System. Function each part.	Theoretical & practical	Written test
10	6	knowledge and understandin g	Nephron Urine Formation Maintenance of acid base balance	Theoretical & practical	Written test
11	6	knowledge and understandin g	Endocrine System Glands(Classification, Function)	Theoretical & practical	Written test
12	6	knowledge and understandin g	Endocrine System Hormones (Types, Function)	Theoretical & practical	Written test
13	6	knowledge and understandin g	Immunity System Cell and Organ Antigens Antibodies	Theoretical & practical	Written test
14	6	knowledge and understandin g	Type of immune system Active and Passive Immune System Humeral and Cellular Immunity	Theoretical & practical	Written test
15	6	knowledge and understandin g	Reproductive System	Theoretical & practical	Written test

95.Course Evaluation

	Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical

	5	5	5	10	15

96.Learning and Teaching Resources

Required textbooks (curricular books, if ar	
Main references (sources)	Guyton, A.C., & Hall, J.E. (2021). Guyton and Hall Textbook Medical Physiology (14th ed.). Elsevier.
Recommended books and references (scientific journals, reports...)	Costanzo, L.S. (2021). Physiology (7th ed.). Elsevier
Electronic References, Websites	Human anatomy atlas 2025 completing 3D human body

Course Description of Dermatology

97.Course Name:
Dermatology
98.Course Code:
-
99.Semester / Year:
First semester/first Year
100. Description Preparation Date:
15.03.2024
101. Available Attendance Forms:
- Manual Attendance Sheet - Online Attendance Log (for virtual classes) google classroom
102. Number of Credit Hours (Total) / Number of Units (Total)
6/6
103. Course administrator's name (mention all, if more than one name)
Name: Assistant Prof.Dr. Hayder Abed Ali Alshawi Email: inj.hdr2@atu.edu.iq
104. Course Objectives

Course Objectives	1. Study skin layers and the basic structure of the skin, and their role in maintaining general health and providing cosmetic treatments. 2. Diagnose common skin diseases and understand the scientific basis of cosmetic treatments. 3. Understand the scientific principles behind each cosmetic procedure (such as laser hair removal or skin tightening) to apply them in a scientific and professional manner. 4. Assess cases requiring medical intervention, identify potential complications, and manage them immediately to ensure patient safety and treatment success.

105. Teaching and Learning Strategies	
Strategy	1- Integrated Lectures & Case-Based Learning (CBL): 2- Hands-On Workshops & Simulation Labs: 3- Small Group Discussions & Problem-Based Learning (PBL): 4- Clinical Observation & Supervised Practice: 5- E-Learning Modules & Virtual Resources: 6- Expert Demonstrations & Masterclasses: 7- Self-Directed Learning & Portfolio Development:

106. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-2	2	knowledge and understanding	Definition of Dermatology: Functions of the Skin: Protection, sensation, thermoregulation,	Theoretical	Written Test

			and synthesis of vitamin D. Skin Anatomy: Epidermis, dermis, hypodermis, and accessory structures (hair, nails, glands).		
3-4	2	knowledge and understanding	Skin Anatomy: Epidermis, dermis, hypodermis, and accessory structures (hair, nails, glands). History Taking: (allergies, family history, environmental factors). Physical Examination: Diagnostic Tools: Biopsy, patch testing, microbiological cultures, Wood's lamp	Theoretical	Written Test
5-6	2	knowledge and understanding	Eczema (Dermatitis): Psoriasis: Types, causes, and treatment. Acne Vulgaris: Rosacea: Symptoms, triggers, and management Fungal Infections Bacterial Infections:Viral Skin Conditions:) Types, causes, Skin Allergies and Hypersensitivity, Angioedema: Causes and emergency management. Drug Reactions:	Theoretical	Written test
7	2	knowledge and understanding	Pigmentary Disorders Vitiligo: Melasma: Albinism:	Theoretical	Written test
8-9	2	knowledge and understanding	Skin Cancer Non-melanoma Skin Cancer (NMSC): Melanoma: Actinic Keratosis: Preventive Strategies: Hair and Nail Disorders Alopecia: Types (alopecia areata, androgenic alopecia), causes, treatment. Onychomycosis: Fungal infections of nails. lichen planus. Nail Dystrophies:	Theoretical	Written test

10	2	knowledge and understanding	Pediatric Dermatology Common Pediatric Skin Disorders:	Theoretical	Written test
11-12	2	knowledge and understanding	Cosmetic Dermatology Skin Aging: Effects of aging on skin, cosmetic treatments (Botox, fillers, laser treatments). Acne Scars: Hyperpigmentation: Dermatological Emergencies	Theoretical	Written test
13	2	knowledge and understanding	Dermatological Treatments Topical Treatments Systemic Treatments: Immunosuppressant & tibiotics, biologics. Light Therapy (Phototherapy Surgical Procedures:	Theoretical	Written test
14	2	knowledge and understanding	Recent Advances in Dermatology Biologics in Dermatology:	Theoretical	Written test
15	2	knowledge and understanding	Teledermatology: Laser and Energy-Based Devices: Advances in laser treatments	Theoretical	Written test

107. 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 .... etc

108. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Rook's Textbook of Dermatology NiNth EditioN EditEd by Christopher E. M. Griffiths Md, FRCP, FMedSci
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description of Laser Physics Applications

109. Course Name:	
Laser Physics Applications	
110. Course Code:	
–	
111. Semester / Year:	
Second semester/first Year	
112. Description Preparation Date:	
27/05/2025	
113. Available Attendance Forms:	
114. Number of Credit Hours (Total) / Number of Units (Total)	
8/8	
115. Course administrator's name (mention all, if more than one name)	
Name: Dr. Jumana Kareem Buraihi Al-Musawi Email: Jumana.kareem.inj@atu.edu.iq	
116. Course Objectives	
Course Objectives	**"Providing the student with an in-depth understanding of the fundamentals of laser physics and how laser beams interact with biological tissues, thereby enabling them to comprehend the mechanisms of laser devices used in cosmetic procedures and to prepare medical personnel capable of accurately and effectively applying laser technologies in various cosmetic treatments.**
117. Teaching and Learning Strategies	
Strategy	• **Interactive Learning**: Using participatory activities with students. • **Practical Training**: Applying professional terms and expressions during lectures and conducting practical experiments in the laboratory. • **Technology-Based Learning**: Utilizing audiovisual materials, interactive applications, and educational videos to enhance comprehension and understanding. • **Self-Directed Learning**: Encouraging students to explore laser physics and its applications. • **Use of Demonstrations**: Presenting laser devices in line with the course content to illustrate their components and working mechanisms. • **Practical Demonstrations in the Laboratory.**

118. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	8	knowledge and understanding	Introduction to Laser	Theoretic& practical	Written test
2	8	knowledge and understanding	Laser Properties	Theoretic& practical	Written Test
3	8	knowledge and understanding	Principle of Laser Operation	Theoretic& practical	Written test
4	8	knowledge and understanding	Fundamentals of Electromagnetic Radiation	Theoretic& practical	Written test
5	8	knowledge and understanding	Laser Components	Theoretic& practical	Written test
6	8	knowledge and understanding	Types of Laser Resonators	Theoretic& practical	Written test
7	8	knowledge and understanding	Atomic Physics	Theoretic& practical	Written test
8	8	knowledge and understanding	Principle of Optical Amplification	Theoretic& practical	Written test
11+10+9	8	knowledge and understanding	Types of Lasers and Their Applications	Theoretic& practical	Written test
13+12	8	knowledge and understanding	Hair Removal Laser	Theoretic& practical	Written test
15+14	8	knowledge and understanding	Laser Applications in Non-Surgical Aesthetic Procedures	Theoretic& practical	Written test

119. Course Evaluation

Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
5	5	5	10	15

120. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	• Laser Fundamentals – by William T. Silfvast. • Principles of Lasers – by Orazio Svelto. • Lasers – Anthony E. Siegman.

	• Introduction to Laser Technology – *C. Breck H James J. Ewing, Jeff Hecht.* • Laser Physics – Peter W. Milonni and Joseph Eberly. • Optics – Eugene Hecht.
Recommended books and references (scientific journals, reports…)	• Applied Physics B • Optics Express • IEEE Journal of Quantum Electronics • Journal of Applied Physics.
Electronic References, Websites	• MIT OpenCourseWare – Laser Fundamentals • Coursera / edX: Laser Physics and Applications

Course Description of General Chemistry

121. Course Name:	
General Chemistry	
122. Course Code:	
-	
123. Semester / Year:	
Second semester/first Year	
124. Description Preparation Date:	
02.06.2025	
125. Available Attendance Forms:	
Attendance	
126. Number of Credit Hours (Total) / Number of Units (Total)	
6/6	
127. Course administrator's name (mention all, if more than one name)	
Name: Msc. Hayder Jawad Abed Email: HayderAbed.inj@atu.edu.iq	
128. Course Objectives	
Course Objectives	By the end of the academic year, the student should be able to perform var techniques for qualitative and quantitative analyses of components in blood other body fluids in humans, both in health and disease
129. Teaching and Learning Strategies	
Strategy	1. Problem-Based Learning (PBL): Present clinical case scenarios requiring students to design and execute appropriate analytical techniques, fostering critical thinking and application skills. 2. Workshops and Demonstrations: Focused sessions on specific analytical methods and instrumentation used in blood and fluid analysis, including step-by-step demonstrations. 3. Group Discussions and Seminars: Facilitate discussions on interpreting analytical results, understanding physiological and pathological variations in blood components. 4. Blended Learning: Combine online modules covering theoretical aspects of qualitative and quantitative analysis with in-person practical sessions. 5. Enquiry-Based Learning: Encourage students to formulate research questions related to blood and body fluid analysis, collect and analyze data, and present findings. 6. Use of Mixed Methods Teaching: Integrate qualitative and quantitative research methods to provide a comprehensive understanding of analysis techniques and their clinical relevance.
130. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	knowledge and understanding	Scope of biochemistry in health and disease, cell and cell .constituents	Theoretic& practical	Written test
2	6	knowledge and understanding	Some aspects of physical chemistry, Gas laws, Boyle's law, Graham's Law of diffusion, Dalton's Law of partial pressure, General gas equation, the international .system of units	Theoretic& practical	Written Test
3	6	knowledge and understanding	Radio activity and radioactive isotopes	Theoretical & practical	Written test
4	6	knowledge and understanding	Solutions and methods of expressing concentrations .colloidal solution	Theoretical & practical	Written test
5	6	knowledge and understanding	The PH concept, Acid-base balance, chemical .equilibrium, common ion effect	Theoretical & practical	Written test
6	6	knowledge and understanding	Buffer and buffer systems of physiological importance .in living systems	Theoretical & practical	Written test
7	6	knowledge and understanding	Blood, blood constituents, body fluids, regulation of blood Ph and body fluids.	Theoretical & practical	Written test
8	6	knowledge and understanding	Water and electrolyte balance osmotic pressure of body fluids, control of total electrolytes and body fluids	Theoretical & practical	Written test
9	6	knowledge and understanding	Carbohydrates classification reactions, main carbohydrates in human body.	Theoretical & practical	Written test
10	6	knowledge and understanding	Metabolism of carbohydrates, blood glucose factors controlling glucose level in blood	Theoretical & practical	Written test

11	6	knowledge and understanding	Glucose abnormalities, diabetes mellitus, ketosis, glycosuria, glucose tolerance curve.	Theoretical & practical	Written test
12	6	knowledge and understanding	Lipids, classification, derived lipids, compound, lipids.	Theoretical & practical	Written test
13	6	knowledge and understanding	Lipid metabolism, lipid abnormalities	Theoretical & practical	Written test
14	6	knowledge and understanding	Proteins, classification, functions, peptide bonds, amino acids, chemical reactions**.**	Theoretical & practical	Written test
15	6	knowledge and understanding	Nucleic acids and their Expression, DNA Replication, Nutation, RNA Topology	Theoretical & practical	Written test

131. Course Evaluation

	Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
	5	5	5	10	15

132. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Lippincott's_ text book
Main references (sources)	Lippincott's_ text book
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Libretext.com ``Biochemistry``

Course Description of Medical Terminology

133.	Course Name:
Medical Terminology	
134.	Course Code:
-	
135.	Semester / Year:
First semester/first Year	
136.	Description Preparation Date:
15.03.2024	
137.	Available Attendance Forms:
138.	Number of Credit Hours (Total) / Number of Units (Total)
2/2	
139.	Course administrator's name (mention all, if more than one name)
Name: Asst. Prof. Dr. Hussein Awad Kurdi Email: husseinawad@atu.edu.iq	
140.	Course Objectives
Course Objectives	This course aims to provide students with basic language sk related to medical terminology that will enable them communicate effectively in the medical field, especially cosmetic and laser techniques.
141.	Teaching and Learning Strategies
Strategy	• Interactive learning: Using collaborative activities such as conversations and group work to enhance medical terminology practice skills. • Practical practice: Applying medical terminology and professional expressions in real-life contexts through simulations and practical exercises. • Technology-based learning: Using audio-visual materials, interactive apps, and educational videos to improve understanding and comprehension. • Self-paced learning: Encouraging students to practice medical terminology by reading and listening to professional dialogues.

142. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-2	2	Student knowledge of the subject matter and understanding of scientific, mental, and professional skills.	Structural analysis: basic rules of medical word building	Theoretical	Written tests Oral tests
3-4	2	Student knowledge of the subject matter and understanding of scientific, mental,	Major suffixes : suffixes denoting a state or condition	Theoretical	Written tests Oral tests

		and professional skills.			
5-6	2	Student knowledge of the subject matter and understanding of scientific, mental, and professional skills.	Major suffixes : suffixes denoting medical actions	Theoretical	Written tests Oral tests
7-8	2	Student knowledge of the subject matter and understanding of scientific, mental, and professional skills.	Prefixes : Prefixes of numbers & measures	Theoretical	Written tests Oral tests
9-10	2	Student knowledge of the subject matter and understanding of scientific, mental, and professional skills.	Prefixes : Prefixes of color	Theoretical	Written tests Oral tests
11-12	2	Student knowledge of the subject matter and understanding of scientific, mental, and professional skills.	Prefixes : Prefixes of direction & position	Theoretical	Written tests Oral tests
13	2	Student knowledge of the subject matter and understanding of scientific, mental, and professional skills.	Body composition, anatomical levels of the body	Theoretical	Written tests Oral tests
14	2	Student knowledge of the subject matter and understanding of scientific, mental, and professional skills.	Directional and directional terms, body positions	Theoretical	Written tests Oral tests
15	2	Student knowledge of the subject matter and understanding of scientific, mental, and professional skills.	Body cavities	Theoretical	Written tests Oral tests

143. Course Evaluation

	Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
	5		5		20

144. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Fundamental of nursing

Main references (sources)	Medical Terminology for Health Professionals 6th edition -Mosby's Medical Dictionary. Elsevier, Mosby/Saunders •
Recommended books and references (scientific journals, reports...)	Medical Terminology for Health Professionals 6th edition Mosby's Medical Dictionary . Elsevier, Mosby/Saunders.•
Electronic References, Websites	http://www.studentconsult.com/ https://quizlet.com/759301/medical terminology-350-flash-cards/

Course Description of Professional Safety

145. Course Name:	
Professional Safety	
146. Course Code:	
-	
147. Semester / Year:	
Second semester/first Year	
148. Description Preparation Date:	
6.5.2025	
149. Available Attendance Forms:	
150. Number of Credit Hours (Total) / Number of Units (Total)	
2/2	
151. Course administrator's name (mention all, if more than one name)	
Name: Aseel Ibrahim Musailem Email: aseelibrahim.inj@atu.edu.iq	
152. Course Objectives	
Course Objectives	Raising awareness of the health and environmental risks associated with work in cosmetic and laser fields, and implementing appropriate preventative and safety measu to protect students and clients. Additionally, the course seeks to ensure compliance v local and international laws and regulations related to occupational safety**.**
153. Teaching and Learning Strategies	
Strategy	Interactive learning • Use demonstrations... 1. Hazard identification: Enable students to recognize potential hazards in the work environment, such as chemicals and electrical devices. 2. Implement safety procedures: Teach students how to use personal protective equipment and follow safety protocols to reduce accidents and injuries. 3.Providing first aid: Equipping students with the knowledge and skills necessary to handle emergencies and common injuries in beauty salons.

154. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	knowledge and understanding	Introduction to Occupational Safety - Definition of occupational safety and its importance. - Review of laws and regulations related to safety in the beauty profession.	Theoretic	Written test
2	2	knowledge and understanding	Hazards in the Workplace	Theoretic	Written Test

			- Types of hazards present in beauty centers. - How to identify potential hazards.		
3	2	knowledge and understanding	Accident Prevention - Basic prevention measures - The importance of personal protective equipment (PPE)	Theoretical	Written test
4	2	knowledge and understanding	Handling Chemicals - Types of chemicals commonly used in cosmetics. - How to handle chemicals safely.	Theoretical	Written test
5	2	knowledge and understanding	First Aid - Basics of First Aid - How to Deal with Common Accidents in Beauty Salons.	Theoretical	Written test
6	2	knowledge and understanding	Electrical Safety - Electrical hazards in beauty salons. - Safety measures to avoid electrical hazards.	Theoretical	Written test
7	2	knowledge and understanding	Sterilization and Hygiene - The importance of sterilization and hygiene. - Effective sterilization methods and good practices.	Theoretical	Written test
8	2	knowledge and understanding	Laser Safety - Types of laser devices used. - Safety procedures when using a laser.	Theoretical	Written test
9	2	knowledge and understanding	Public Health - The impact of working in the beauty industry on public health. - The importance of caring for mental and physical health.	Theoretical	Written test
10	2	knowledge and understanding	Psychological Hazards at Work - Identifying Psychological Stress - Strategies for Dealing with Stress	Theoretical	Written test

11	2	knowledge and understanding	Dealing with Customers - How to Deal with Customers Safely - The Importance of Effective Communication to Reduce Risk	Theoretical	Written test
12	2	knowledge and understanding	Training and Development - The importance of ongoing training in enhancing safety. - How to organize safety workshops.	Theoretical	Written test
13	2	knowledge and understanding	Occupationalsafety legislation - Review local and international laws. - How to comply with legislation.	Theoretical	Written test
14	2	knowledge and understanding	Good Safety Practices - Review of Global Best Practices - Implementing Good Practices in Beauty Centers	Theoretical	Written test
15	2	knowledge and understanding	Safety in the Use of Modern Devices - Risks of Using Modern Cosmetic Devices - Associated Safety Procedures	Theoretical	Written test

155. Course Evaluation

Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
5		5		20

156. Learning and Teaching Resources

Required textbooks (curricular books, if a	
Main references (sources)	https://www.ilo.org/topics-and-sectors/safety-and-health-w
Recommended supporting books and references (scientific journals, reports, etc.)	"The Essential Guide to Accident Investigation and L Control."
Electronic references, websites	Occupational Safety and Health Administration (OSH website: International Labour Organization (ILO) website:

Course descriptionof Arabic

157.	Course Name
Arabic	
158.	Course Code
159.	Semester/ year
Second Semester/2025	
160.	Date this description was prepared
25.05.2025	
161.	1. Available forms of attendance: blended in-person education
Attendence	
162.	Number of study hours (total)/number of units (total)
30hours	
163.	Name of the course administrator (if more than one name is mentioned)
Name:Waleed Abd Alkarim Muhammad : E : mail: waleed.al-kareem.inj@atu.edu.iq	
164.	objectives Course
	Objectives of the study subject 1- Empowering students with Arabic language skills and issues at all levels: phonetic, morphological, grammatical, semantic, and stylistic. 2- Developing listening, reading and expression skills. 3- Developing positive attitudes and values among students towards their Arabic language related to religion and Arab heritage.
165.	Teaching and learning strategies
The strategy	1- Theoretical lectures. 2- Cooperative education strategy and group system. 3- Pen and paper strategy. 4- Brainstorming strategy and stimulating creative thinking.

166. Course structure

the week	**hours**	**Required learning outcomes**	**Name of the unit or topic**	**Learning method**	**Evaluation method**
1	2	Knowledge and understanding	Introduction to linguis errors - the long and long ta'a	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
2	2	Knowledge and understanding	Rules for writing the extended and shortened alifs and the solar and lunar letters	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
3	2	Knowledge and understanding	Dhaad and Dhaa	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options

4	2	Knowledge and understanding	Writing the hamza	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
5	2	Knowledge and understanding	punctuation marks	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
6	2	Knowledge and understanding	The noun, the verb and the difference between them	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
7	2	Knowledge and understanding	Effects	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
8	2	Knowledge and understanding	the number	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
9	2	Knowledge and understanding	Applications of common linguistic errors	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
10	2	Knowledge and understanding	Noun, Tanween, and the meanings prepositions	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
11	2	Knowledge and understanding	Formal aspects of administrative discourse	Active learning: includes active and interactive participation in the learning process	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no

				through practicing scientific activities and applications	answer or choosing the correct .answer from multiple options
12	2	Knowledge and understanding	The language of administrative discourse	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
13	2	Knowledge and understanding	Examples of administrative correspondence	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
14	2	Knowledge and understanding	Linguistic errors	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options
15	2	Knowledgem and understanding	Examples of administrative books	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct .answer from multiple options

167. Course evaluation

Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
5		5		20

168. Learning and teaching resources

(Required textbooks methodology, if any	1- Explanation of Ibn Aqeel on Alfiyyah Ibn Malik 2- Philology and Arabic secrets, Abu Mansour Al-Thaalabi 3 The Arabic language, its meaning and structure, is "Tamam Hassan".
d	
Recommended supporting books and references (....scientific journals, reports)	
Electronic references, Internet sites	

Second Glass 1st

Course Description of Medical Physics

169. Course Name:	
Medical Physics	
170. Course Code:	
-	
171. Semester / Year:	
first semester/ Second Year	
172. Description Preparation Date:	
02.06.2025	
173. Available Attendance Forms:	
174. Number of Credit Hours (Total) / Number of Units (Total)	
6/6	
175. Course administrator's name (mention all, if more than one name)	
Name: dr. Haider Abbas Harees Email: haider.heris@atu.edu.iq	
176. Course Objectives	
Course Objectives	By the end of the academic year, the student should be able to master var techniques in physics and the medical fields that utilize physics.
177. Teaching and Learning Strategies	
Strategy	7. Practical Laboratory Sessions: Hands-on training where students conduct physics experiments to enhance their scientific and practical knowledge. 8. Problem-Based Learning: Presenting clinical cases that require students to design and implement appropriate analytical techniques, thereby fostering critical thinking and application skills. 9. Workshops and Demonstrations: Focused sessions on analytical methods and equipment used in medical physics, featuring step-by-step presentations. 10. Group Discussions and Seminars: Facilitating discussions on the interpretation of physical results and practical experiments.

178. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	knowledge and understanding	Introduction to Medical Physics	Theoretic& practical	Written test

2	6	knowledge and understanding	Fundamentals of Light and Electromagnetic Radiation	Theoretic& practical	Written Test
3	6	knowledge and understanding	Basics of Laser Technology	Theoretical & practical	Written test
4	6	knowledge and understanding	Types of Lasers Used in Cosmetic Treatments	Theoretical & practical	Written test
5	6	knowledge and understanding	Interaction of Laser with Living Tissues	Theoretical & practical	Written test
6	6	knowledge and understanding	Safety and Precaution Procedures in Laser Use	Theoretical & practical	Written test
7	6	knowledge and understanding	Laser Devices and Instruments in Cosmetic Applications	Theoretical & practical	Written test
8	6	knowledge and understanding	Physics of Laser Hair Removal	Theoretical & practical	Written test
9	6	knowledge and understanding	Laser Applications for Acne and Skin Pigmentation	Theoretical & practical	Written test
10	6	knowledge and understanding	Laser Physics in Skin Tightening and Rejuvenation	Theoretical & practical	Written test
11	6	knowledge and understanding	Non-invasive Laser Applications in Cosmetics	Theoretical & practical	Written test
12	6	knowledge and understanding	Evaluation Criteria for Laser Treatment Quality	Theoretical & practical	Written test
13	6	knowledge and understanding	Imaging and Skin Examination Techniques Pre/Post Laser Treatment	Theoretical & practical	Written test
14	6	knowledge and understanding	Recent Advances in Medical Laser Technology	Theoretical & practical	Written test
15	6	knowledge and understanding	General Review and Practical Applications / Case Studies	Theoretical & practical	Written test

179. Course Evaluation

Absences	Teacher evaluation Practical	Teacher evaluation Theoretical	Mid examination Practical	Mid examination Theoretical
5	5	5	10	15

180. Learning and Teaching Resources

Required textbooks (curricular books, if an	Anatomy & Physiology: The Unity of Form and Function Histology: A Text and Atlas
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Human anatomy atlas 2025 completing 3D human body

Course Description of Dermatology

181. Course Name:
Dermatology
182. Course Code:
-
183. Semester / Year:
First semester/second Year
184. Description Preparation Date:
02.06.2025
185. Available Attendance Forms:
186. Number of Credit Hours (Total) / Number of Units (Total)
6/6
187. Course administrator's name (mention all, if more than one name)
Name: Dr.Shaimaa Alaa Hassan Email:shaimaa.chabuck@gmail.com
188. Course Objectives

Course Objectives	**"Empowering the student to understand skin structure, the mechanis behind common skin diseases, and equipping them with scient knowledge on prevention and treatment methods.**

1. Teaching and Learning Strategies Case-based learning to analyze real images and cases, reaching a diagnosis through a systematic, critical thinking approach.
2. Interactive skills lab equipped with modern devices for hands-on student training.
3. Group discussion sessions to stimulate critical thinking and comparison between similar diagnoses.
4. Following the latest research and new techniques in treating skin diseases.
5. Delivering the material in an interactive style that links theory and practice, using images and illustrative presentations.

Strategy	11. Problem-Based Learning (PBL): Present clinical case scenarios requiring

6. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	knowledge and understanding	Autoimmune diseases	Theoretic& practical	Written test
2	6	knowledge and understanding	Psoriasis	Theoretic& practical	Written Test

3	6	knowledge and understanding	Systemic Lupus Erythmatosus	Theoretical & practical	Written test
4	6	knowledge and understanding	Vitiligo	Theoretical & practical	Written test
5	6	knowledge and understanding	Melasma	Theoretical & practical	Written test
6	6	knowledge and understanding	Hair and scalp problems	Theoretical & practical	Written test
7	6	knowledge and understanding	Nail problems	Theoretical & practical	Written test
8	6	knowledge and understanding	Introduction to malignant diseases	Theoretical & practical	Written test
9	6	knowledge and understanding	Skin cancer 1	Theoretical & practical	Written test
10	6	knowledge and understanding	Skin cancer 2	Theoretical & practical	Written test
11	6	knowledge and understanding	Pediatric dermatology	Theoretical & practical	Written test
12	6	knowledge and understanding	Drug induced skin problems	Theoretical & practical	Written test
13	6	knowledge and understanding	Skin manifestations of chronic diseases	Theoretical & practical	Written test
14	6	knowledge and understanding	Cosmetic dermatology	Theoretical & practical	Written test
15	6	knowledge and understanding	Dermatological emergencies	Theoretical & practical	Written test

7. 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 .... etc

8. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Fitzpatricks Dermatology
Main references (sources)	Fitzpatricks Dermatology
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	DermNet,DermWeb

Course Description of Aestheticsy

189. Course Name:	
General Chemistry	
190. Course Code:	
-	
191. Semester / Year:	
Second semester/first Year	
192. Description Preparation Date:	
02.06.2025	
193. Available Attendance Forms:	
194. Number of Credit Hours (Total) / Number of Units (Total)	
6/6	
195. Course administrator's name (mention all, if more than one name)	
Name: Msc. Zahraa Hussein Ali Email: zahraa.husein.inj@atu.edu.iq	
196. Course Objectives	
Course Objectives	To provide students with the technical and practical ski to perform aesthetic procedures and recognize materials and tools used in non-surgical aesthetics, maki them ready for the job market.
197. Teaching and Learning Strategies	
Strategy	• Introduce students to the concepts and techniques of non-surgical aesthetics. • Enable students to recognize the materials and tools used in the field. • Identify appropriate areas for injection or treatment. • Equip students with practical skills to perform common aesthetic procedures. • Promote safety and hygiene practices during aesthetic procedures. • Understand the differences between surgical and non-surgical aesthetics.

198. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	knowledge and understanding	**Introduction to Non-Surgical Aesthetics** Differences Between Surgical and Non-Surgical Aesthetics History and Development of Non-Surgical Aesthetics	Theoretic& practical	Written test

2	6	knowledge and understanding	Definition and Mechanism of Action Common Injection Sites Dosage, Injection Technique, Tools Used Results and Possible Complications |	Theoretic& practical	Written Test
3	6	knowledge and understanding	Types of Fillers (Hyaluronic Acid, Calcium, Autologous Fat) Injection Techniques Wrinkle Correction, Lip Augmentation, Cheek Enhancement Managing Complications |	Theoretical & practical	Written test
4	6	knowledge and understanding	**Skincare and Peeling** Types of Peeling (Chemical, Mechanical, Laser) Hydrafacial and Microdermabrasion Treatment Protocols by Skin Type Pre- and Post-Session Care	Theoretical & practical	Written test
5	6	knowledge and understanding	**Skincare and Peeling** Types of Peeling (Chemical, Mechanical, Laser) Hydrafacial and Microdermabrasion Treatment Protocols by Skin Type Pre- and Post-Session Care	Theoretical & practical	Written test
6	6	knowledge and understanding	**Platelet-Rich Plasma (PRP)** Biological Principles Preparation Method Applications in Skin and Hair Benefits and Side Effects	Theoretical & practical	Written test
7	6	knowledge and understanding	**Microneedling and Mesotherapy** Tools (Dermapen, Dermaroller) Collagen Stimulation and Skin Brightening |	Theoretical & practical	Written test
8	6	knowledge and understanding	Mesotherapy Injections: Substances and Techniques	Theoretical & practical	Written test
9	6	knowledge and understanding	**Cosmetic Laser** Types of Laser (Peeling, Hair Removal, Pigmentation) Safety Standards and Calibration	Theoretical & practical	Written test
10	6	knowledge and understanding	Post-Laser Skin Care Possible Complications and How to Handle Them	Theoretical & practical	Written test
11	6	knowledge and understanding	**Non-Surgical Skin Tightening** Cosmetic Threads (PDO	Theoretical & practical	Written test

			Threads) Approved Devices (Ultherapy, Radiofrequency, HIFU) Treatment Protocols Indications and Contraindications		
12	6	knowledge and understanding	**Body Contouring and Fat Reduction** Cryolipolysis Cavitation and	Theoretical & practical	Written test
13	6	knowledge and understanding	Radiofrequency Integrated Programs for Localized Slimming	Theoretical & practical	Written test
14	6	knowledge and understanding	**Safety, Complications, and Management**	Theoretical & practical	Written test
15	6	knowledge and understanding	**Legal and Ethical Aspects**	Theoretical & practical	Written test

199. 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 .... etc	
200. Learning and Teaching Resources	
Required textbooks (curricular books, if an	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description of Skin Toxicology

201. Course Name:
Skin Toxicology
202. Course Code:
-
203. Semester / Year:
Second semester/second Year
204. Description Preparation Date:
02.06.2025
205. Available Attendance Forms:
206. Number of Credit Hours (Total) / Number of Units (Total)
6/6
207. Course administrator's name (mention all, if more than one name)
Name: Asst. Lecturer Ahmed Ali Mohammed Email: aamshamarti@gmail.com

208. Course Objectives	
Course Objectives	Understand the biological mechanisms by which the skin functions as a defen barrier and as a pathway for the absorption of substances. Identify toxic chemical groups present in cosmetic products and their molec effects. Understand the principles of phototoxicity resulting from the interaction betw laser/UV radiation and chemical compounds. Become familiar with international standards (FDA & SCCS) for evalua cosmetic product safety. Analyze product ingredient lists (INCI lists) and identify high-risk substances Conduct and monitor skin sensitivity tests (Patch Test) and interpret their resu Use skin function measurement devices such as the Corneometer to eval irritation after cosmetic procedures. Apply occupational safety protocols to prevent exposure to laser plume volatile chemicals.

209. Teaching and Learning Strategies	
Strategy	12. Use Fick's Law as a diagnostic tool rather than merely a theoretical equation. 13. Calculate how the absorption of topical anesthetic cream changes before and after removal of the stratum corneum by laser or chemical peeling. 14. Explain Phase I (oxidation) and Phase II (conjugation/elimination) reactions and how the skin may chemically activate certain toxins. 15. Explain the mechanism of cytokine release (such as IL-1α) from damaged keratinocytes immediately after injury. 16. Clarify the time difference between the first exposure (sensitization) and the second exposure (elicitation). 17. Discuss the risk of extensive absorption of substances such as phenol or lidocaine and their effects on internal organs (liver and heart).

210. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	knowledge and understanding	Introduction and physiology of the skin barrier (dermatotoxicology overview, functional anatomy of the stratum corneum, Brick and Mortar model, ethnic and genetic factors affecting skin permeability).	Theoretic & practical	Written test
2	6	knowledge and understanding	Mechanics of transdermal absorption (transcellular and intercellular pathways, chemical factors such as LogP and molecular weight, Fick's diffusion equation and applications in cream absorption).	Theoretic& practical	Written Test

3	6	knowledge and understanding	Cutaneous metabolism of toxins (Cytochrome P450 enzymes in the skin, bioactivation, effect of metabolism on cosmetic efficacy).	Theoretical & practical	Written test
4	6	knowledge and understanding	Irritant Contact Dermatitis (ICD): physiological mechanism of irritation, cytokine role, common chemical irritants in cosmetology.	Theoretical & practical	Written test
5	6	knowledge and understanding	Allergic Contact Dermatitis (ACD): skin immunity, Langerhans cells, hapten formation, stages of sensitization and elicitation, Patch Test.	Theoretical & practical	Written test
6	6	knowledge and understanding	Review and examination.	Theoretical & practical	Written test
7	6	knowledge and understanding	Photo-toxicity and photo-allergy (interaction between light and chemicals, cosmetic materials reacting with lasers, prevention of photo-chemical burns).	Theoretical & practical	Written test
8	6	knowledge and understanding	Toxicity of cosmetic preservatives (types of preservatives, toxicity mechanisms, hormonal effects, evaluation of 'paraben-free' alternatives).	Theoretical & practical	Written test
9	6	knowledge and understanding	Toxicity of fragrances and essential oils (fragrance chemistry, the internationally recognized 26 fragrance allergens, toxicity of 'natural' oils and misconceptions about their safety).	Theoretical & practical	Written test
10	6	knowledge and understanding	Laser–chemical interactions (laser-induced chemical bond breakdown, tattoo ink decomposition and toxic aromatic amines, safety of the technician and patient).	Theoretical & practical	Written test
11	6	knowledge and understanding	Systemic toxicity from topical absorption (when cosmetic substances reach the bloodstream, effects on the liver and kidneys, documented poisoning cases from cosmetic products).	Theoretical & practical	Written test
12	6	knowledge and understanding	Skin carcinogenesis (chemical carcinogens in environment and cosmetics, DNA damage mechanisms, the role of UV radiation as a co-factor).	Theoretical & practical	Written test

13	6	knowledge and understanding	Heavy metals and impurities in cosmetics (lead in lipstick, mercury in skin-lightening creams, systemic toxicity from dermal absorption).	Theoretical & practical	Written test
14	6	knowledge and understanding	Risk assessment and safety margin calculation (safe dose estimation, application of European SCCS equations, difference between hazard and risk).	Theoretical & practical	Written test
15	6	knowledge and understanding	Review and final examination.	Theoretical & practical	Written test

211. Course Evaluation

Theoretical midterm examination – 15%
Practical midterm examination – 10%
Instructor evaluation (theoretical) – 5%
Instructor evaluation (practical) – 5%
Attendance – 5%

212. Learning and Teaching Resources

Marzulli and Maibach's Dermatotoxicology
Applied Dermatotoxicology: Clinical Aspects
Principles and Practice of Skin Toxicology

Course description for first aid

1. Course Name
first aid
1. Course Code
Nothing
1. Term/Year
First/Second
1. Date this description was prepared
24/2/2026
1. Available attendance formats
1. Number of study hours (total) / Number of units (total)
6/6
1. Name of the course coordinator (if there is more than one name, mention it).
Name: Zahraa Hamed Dawood email:zahraa.hamed.inj@atu.edu.iq
1. Course Objectives

The student should be able, at the end of the academic year, to act quickly and correctly in emergency situations such as fainting, loss of breathing, sudden pulse, fire, and other conditions, and to provide first aid before medical assistance arrives in order to preserve the life of the injured person and to reduce the damage.	Course objectives

1. Teaching and learning strategies

Practical Learning (Applied Training): Practical application of skills such as CPR, wound dressing, and fracture immobilization using mannequins and training tools. Frequent Training and Continuous Practice Repeating essential skills to ensure mastery and confidence during real-world application. Hosting or Field Visits Inviting emergency specialists or visiting health centers to experience a realistic work environment. Direct Practical Assessment	Strategy

Evaluating students based on skill performance using a clear set of criteria. Project-Based Learning Developing First Aid Awareness Campaigns Immediate Feedback Providing immediate feedback after each practical activity to improve performance and correct errors promptly.

1. Course Structure

Assessment Method	Learning Method	Unit or Topic Name	Required Learning Outcomes	hours	week
Written tests Oral tests Laboratory reports	Theoretical	Introduction to the importance of first aid in cosmetic and laser treatments, the paramedic, ethics and principles	Knowledge and understanding	6	**1**
Written tests Oral tests Laboratory reports	Theoretical, practical	Patient assessment, principles of cardiopulmonary resuscitation (CPR) and the use of an external defibrillator (AED), types of injuries in the cosmetic and laser environment	Knowledge and understanding	6	**2**
Written tests Oral tests Laboratory reports	Theoretical, practical	Laser and heat burns: degrees and first aid	Knowledge and understanding	6	**3**
Written tests Oral tests	Theoretical, practical	Chemical burns from peeling agents and treatments	Knowledge and understanding	6	**4**

Laboratory reports					
Written tests Oral tests Laboratory reports	Theoretical, practical	Internal and external bleeding after cosmetic procedures	Knowledge and understanding	6	**5**
Written tests Oral tests Laboratory reports	Theoretical, practical	Bruising after injections and laser treatments, and methods of reduction	Knowledge and understanding	6	**6**
Written tests Oral tests Laboratory reports	Theoretical, practical	Bruising after injections and laser treatments, and methods of reduction	Knowledge and understanding	6	**7**
Written tests Oral tests Laboratory reports	Theoretical, practical	First aid for facial, oral, and dental procedures during laser treatment	Knowledge and understanding	6	**8**
Written tests Oral tests Laboratory reports	Theoretical, practical	Allergies and allergic reactions (simple and severe/influx).	Knowledge and understanding	6	**9**
Written tests Oral tests Laboratory reports	Theoretical, practical	Psychological trauma and panic during/after cosmetic procedures	Knowledge and understanding	6	**10**
Written tests Oral tests Laboratory reports	Theoretical, practical	First aid for poisoning or chemical exposure within beauty centers.	Knowledge and understanding	6	**11**

Written tests Oral tests Laboratory reports	Theoretical, practical	First aid for musculoskeletal injuries and patient transport to the emergency room	Knowledge and understanding	6	**12**
Written tests Oral tests Laboratory reports	Theoretical, practical	First aid for work-related injuries, infections after injections or laser treatments	Knowledge and understanding	6	**13**
Written tests Oral tests Laboratory reports	Theoretical, practical	First aid kit, personal protective equipment, integrated safety practice protocols	Knowledge and understanding	6	**14**
Written tests Oral tests Laboratory reports	Theoretical, practical	First aid kit, personal protective equipment, integrated safety practice protocols	Knowledge and understanding	6	**15**

1. Course Evaluation

	Absences	Practical evaluation of the professor	Professor's theoretical evaluation	Practical exam	Theoretical exam
	5	5	5	10	15

1. Learning and teaching resources

First Aid/CPR/AED Participant's Manual	Required textbooks (methodology, if applicable)
He artsaver First Aid CPR AI Student Workbo	Main references (sources)
	Recommended supporting books and references (scientific journals, reports...)
European Resuscitation Council (ERC)	Electronic references, websites

Course description formArabic

213.	Course Name
Arabic	
214.	Course Code
215.	Semester/ year
Quarterly	
216.	Date this description was prepared
2024/ 4 /15	
217.	1. Available forms of attendance: blended in-person education
218.	Number of study hours (total)/number of units (total)
30hours	
219.	Name of the course administrator (if more than one name is mentioned)
Name:Waleed Abd Alkarim Muhammad : : Yamilwaleed.al-kareem.inj@atu.edu.iq	
220.	objectives Course
	Objectives of the study subject 1- Empowering students with Arabic language skills and issues at all levels: phonetic, morphological, grammatical, semantic, and stylistic. 2- Developing listening, reading and expression skills. 3- Developing positive attitudes and values among students towards their Arabic language related to religion and Arab heritage.
221.	Teaching and learning strategies
The strategy	1- Theoretical lectures. 2- Cooperative education strategy and group system. 3- Pen and paper strategy. 4- Brainstorming strategy and stimulating creative thinking.

222. Course structure

the week	hours	Required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
the first	2	Knowledge a understanding	Introduction to linguistic errors - the long and long ta'a	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such as tests that require a yes or no answer or choosing the correct answer from multiple .options
the second	2	Knowledge a understanding	Rules for writing the extended and shortened alifs and the solar	Active learning: includes active and interactive	Objective assessment: includes the use of tests with predetermined

			and lunar letters	participation in the learning process through practicing scientific activities and applications	answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
the third	2	Knowledge a understanding	Dhaad and Dhaa	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
the fourth	2	Knowledge a understanding	Writing the ham	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
Fifth	2	Knowledge ar understandir	punctuation mar	Active learning: includes active and interactive participation in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options

VI	2	Knowledge a understanding	The noun, the verb, and the difference between them	Active learning: includes active and interactive participatio n in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
Seventh	2	Knowledge a understanding	Effects	Active learning: includes active and interactive participatio n in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
VIII	2	Knowledge a understanding	the number	Active learning: includes active and interactive participatio n in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
Ninth	2	Knowledge a understanding	Applications of common linguistic errors	Active learning: includes active and interactive participatio n in the learning process through practicing	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer

				scientific activities and applications	from multiple .options
The tenth	2	Knowledge a understanding	Noun, Tanween, and the meanings of prepositions	Active learning: includes active and interactive participatio n in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
eleventh	2	Knowledge a understanding	Formal aspects of administrative discourse	Active learning: includes active and interactive participatio n in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
twelveth	2	Knowledge a understanding	The language of administrative discourse	Active learning: includes active and interactive participatio n in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
Thirteenth	2	Knowledge a understanding	Examples of administrative correspondenc e	Active learning: includes active and interactive participatio n in the	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir

				learning process through practicing scientific activities and applications	yes or no answe or choosing the correct answer from multiple .options
fourteenth	2	Knowledge a understanding	Linguistic errors	Active learning: includes active and interactive participatio n in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options
Fifteenth	2	Knowledge a understanding	Examples of administrative books	Active learning: includes active and interactive participatio n in the learning process through practicing scientific activities and applications	Objective assessment: includes the use of tests with predetermined answers, such a tests that requir yes or no answe or choosing the correct answer from multiple .options

223. Course evaluation

Grade distribution
20 Editorial + 10 activity = 30
70 Final

224. Learning and teaching resources

Required textbooks (methodology, if any)	1- Explanation of Ibn Aqeel on Alfiyyah Ibn Malik . 2- Philology and Arabic secrets, Abu Mansour Al-Thaalabi 3- The Arabic language, its meaning and structure, is “Tamam Hassan”.
Main references (sources)	
Recommended supporting books and references (....scientific journals, reports)	
Electronic references, Internet sites	

Course Description of Aesthetics Centers management

225. Course Name:	
Aesthetics Centers management	
226. Course Code:	
-	
227. Semester / Year:	
First semester/first Year	
228. Description Preparation Date:	
02.06.2025	
229. Available Attendance Forms:	
230. Number of Credit Hours (Total) / Number of Units (Total)	
2/2	
231. Course administrator's name (mention all, if more than one name)	
Name: Msc. Suhad Abdulzahra Hachim Email: inj.suhadaalzhra2010@atu.edu.iq	
232. Course Objectives	
Course Objectives	Introduce students to the basic principles of management and human resources management and their application in the context of aesthetics centers. Develop operational and strategic action plans for managing a aesthetics salon and assist in decision-making. Equip students with the fundamentals of accounting and financial management for aesthetics center. Teach students how to develop effective marketing strategies to attract and retain customers and build a strong brand for the aesthetics center. Apply health and medical standards in quality management, risk management, and emergency response to ensure a safe work environment for clients and employees. Understand the legal and ethical aspects of aesthetics center management. Utilize tools for digital transformation, continuous improvement, and performance evaluation.
233. Teaching and Learning Strategies	
Strategy	1-Learning based on critical analysis for problem-solving: We present management scenarios and ask students to analyzing them; we then teach them critical thinking 2. Workshops and demonstrations: Sessions focusing on management techniques, analyzing problems within the organisation and staff, and providing the correct response to every situation that happen in the aesthetics centre – whether involving medical staff, assistants or sales staff – as well as positive and negative customer interactions, step by step. 3. Group discussions and seminars: Facilitating discussions on interpreting analytical results and understanding differences in customer engagement to build loyalty to solve the problems. 4. Blended learning: Combining online modules covering the theoretical aspects of qualitative and quantitative analysis with practical face-to-face sessions.

234. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Categorize different types of aesthetics centers and	The aesthetics centers and Services Offered by Aesthetics centerss	Theoretical	Written test

		identify core vs. advanced services.			
2	2	Distinguish between the three levels of management and their specific roles within a salon.	- Management fundamentals - Levels of Management	Theoretical	Written test and examples
3	2	Design organizational charts and define authorities and responsibilities for staff.	Organization, Organizational Structures, and Definition of Authorities	Theoretical & training	Written test and examples
4	2	Understand the principles of professional management and its impact on salon sustainability.	- An Introduction to Managing Aesthetics centers -The Importance of Management in the beauty Industry	Theoretical & training	Written test and examples
5	2	Analyze the center as an economic business unit focused on profitability and client value.	The Basic Concept of a Aesthetics Centers as a Business Unit	Theoretical & training	Written test and examples
6	2	Develop operational daily schedules and master administrative decision-making processes.	Operational Planning and Decision-Making in Aesthetics Centers	Theoretical & training	Written test and examples
7	2	Formulate vision and mission statements while identifying entrepreneurial opportunities in the market	Strategic Planning and Entrepreneurship in Aesthetics Centers	Theoretical & training	Written test and examples
8	2	Build a brand identity and select effective digital and traditional marketing strategies.	Marketing and Branding for a Aesthetics Center	Theoretical & training	Written test and examples
9	2	Apply skills for staff recruitment, professional interviewing, and team motivation.	Human Resources and Recruitment	Theoretical & training	Written test and examples
10	2	Master client relationship management, loyalty programs, and conflict resolution.	Customer Service and Retention	Theoretical & training	Written test and examples
11	2	Implement total quality management (TQM) standards and optimize workflow efficiency.	Operations and Quality Management	Theoretical & training	Written test and examples
12	2	Understand basic accounting principles, cash flow management, and budgeting.	Fundamental of Acounting and Financial Management in Aesthetics Centers	Theoretical & training	Written test and examples
13	2	Utilize modern software for booking, data management, and digital business transformation.	The technology and Digital Transformation in Aesthetics Center	Theoretical & training	Written test and examples
14	2	Identify occupational risks and manage inventory,	- Risk and Emergency Management	Theoretical & training	Written test and examples

		stock control, and supplier relations.	- Product and Supplier Management		
15	2	Evaluate institutional performance while adhering to legal regulations and ethical codes.	- Evaluation and Continuous Improvement - Legal and Ethical Considerations	Theoretical & training	Written test and examples

235. 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, quizzes, Brainstorming Questions .... etc	
236. Learning and Teaching Resources s	
Required textbooks (curricular books, if any)	null
Main references (sources)	
Recommended books and references (scientific journals, reports...)	Good to Great , Jim Collins The beautify and Lasers, Dr. Sayed Zaki Salim
Electronic References, Websites	https://www.dawliatraining.com/training-packages-single/2438, https://www.scribd.com/document/999084534/%D8%A7%D8%