

Course Description Form

1. Course Name:	
General pathology	
2. Course Code:	
MTAL2104	
3. Semester / Year:	
1st course /2025-2026	
4. Description Preparation Date:	
7/10/2025	
5. Available Attendance Forms:	
Full-time and official attendance hour	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 hours /15 Units	
7. Course administrator's name (mention all, if more than one name)	
Name: zahraa haziem nadhiem Email: zahraahaziem987@gmail.com	
8. Course Objectives	
Course Objectives	Knowledge - Pathology transforms abstract medical theories (how cells and the immune system work) into tangible clinical applications. It works on mechanisms to understand tissue defects that cause the problem and the ability to understand the basic classifications of diseases (infectious, non-infectious, chronic, acute, and hereditary). - The ability to apply knowledge of the analytical pathological basis of skin conditions and differentiate between pathological changes. - Link the pathological basis with cosmetic technology to understand how and why laser technology works in diseased conditions. Skill Diagnostic skill: The ability to examine skin conditions, apply pathology knowledge, differentiate between normal and pathological conditions, predict potential complications, take appropriate therapeutic measures, and apply early detection rules for dangerous lesions. Communication and consultation skills: Providing scientific consultations and clearly explaining procedures and risks. Proficient in operating cosmetic and laser devices and adjusting technical parameters according to the diseased condition. Ethical objectives

	• Adherence to basic principles and prioritizing client safety over all other considerations. • Commitment to transparency and full disclosure of Medical procedures and integrity Providing consultations according to medical and patient needs.
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9. Teaching and Learning Strategies

Strategy	The strategic goal is to: • Transform the student from a passive recipient to an active researcher analyzing the pathological mechanisms of systemic diseases and their manifestations. • Analyze clinical images and relate them to the underlying pathology. • Evaluate cosmetic indications and contraindications based on the underlying disease.
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2T 2 P	Students will be able to define pathology, Describe its main branches, and explain its role in medical sciences	Introduction to Pathology Definitions, Divisions Lab safety, microscopy, tissue handling	Lectures and PowerPoint slides & Interactive	Weekly, monthly, a reporting examination And Scientific Description
2	2T 2 P	Students understand the causes and mechanisms of cell	Cell Injury and Cell Death Reversible vs Irreversible	Lectures and PowerPoint slides &	Weekly, monthly, a reporting examination

		injury differentiate between reversible and irreversible injury	cell injury slides	Interactive	And Scientific Description
3	2T 2 P	Students will describe the stages and cellular events of acute inflammation and identify morphological features	Inflammation I – Acute Slides of acute inflammation	Lectures PowerPoint slides & Interactive	Weekly, monthly, a reporting examination And Scientific Description
4	2T 2 P	Students distinguish chronic from acute inflammation and explain the formation and features of granuloma	Inflammation II–Chronic Granulomatous TB and granuloma slides	Lectures PowerPoint slides & Interactive	Weekly, monthly, a reporting examination And Scientific Description
5	2T 2 P	Students will explain the processes of tissue regeneration and wound healing, including factors affecting healing	Tissue Repair: Regeneration Healing Wound healing stages	Lectures PowerPoint slides & Interactive	Weekly, monthly, a reporting examination And Scientific Description
6	2T 2 P	Students recognize the causes and effects of edema, hyperemia, congestion, and thrombosis	Hemodynamic Disorders I Edema, thrombosis slides	Lectures PowerPoint slides & Interactive	Weekly, monthly, a reporting examination And Scientific Description
7	2T 2 P	Students will describe the mechanisms and consequences of infarction and differentiate between red and white infarcts	Hemodynamic Disorders II Infarcted organs	Lectures PowerPoint slides & Interactive	Weekly, monthly, a reporting examination And Scientific Description

8	2T 2 P	Students will define shock, classify types, and explain its pathophysiology and clinical importance	Shock & Clinical Correlates Shock pathology	Lectures PowerPoint slides & Interactive	a Weekly, monthly, a reporting examination And Scientific Description
9	2T 2 P	Students understand the types of hypersensitivity reactions and identify autoimmune diseases with examples	Immune-Mediated Diseases Lupus, RA histology	Lectures PowerPoint slides & Interactive	a Weekly, monthly, a reporting examination And Scientific Description
10	2T 2 P	Students distinguish between benign and malignant tumors and understand the basic characteristics of neoplasia	Neoplasia I Benign vs malignant tumors	Lectures PowerPoint slides & Interactive	a Weekly, monthly, a reporting examination And Scientific Description
11	2T 2 P	Students will identify tumor markers, understand metastasis, and describe laboratory diagnostic methods like IHC	Neoplasia II Tumor markers, IHC	Lectures PowerPoint slides & Interactive	a Weekly, monthly, a reporting examination And Scientific Description
12	2T 2 P	Students will explain the pathological effects of environmental toxins and nutritional imbalance on body tissues	Environmental and Nutritional Diseases Lead, alcohol effects	Lectures PowerPoint slides & Interactive	a Weekly, monthly, a reporting examination And Scientific Description
13	2T 2 P	Students will describe chromosomal abnormalities, genetic syndromes, and diagnostic techniques	Genetic Disorders Karyotyping, congenital syndromes	Lectures PowerPoint slides &	a Weekly, monthly, a reporting examination

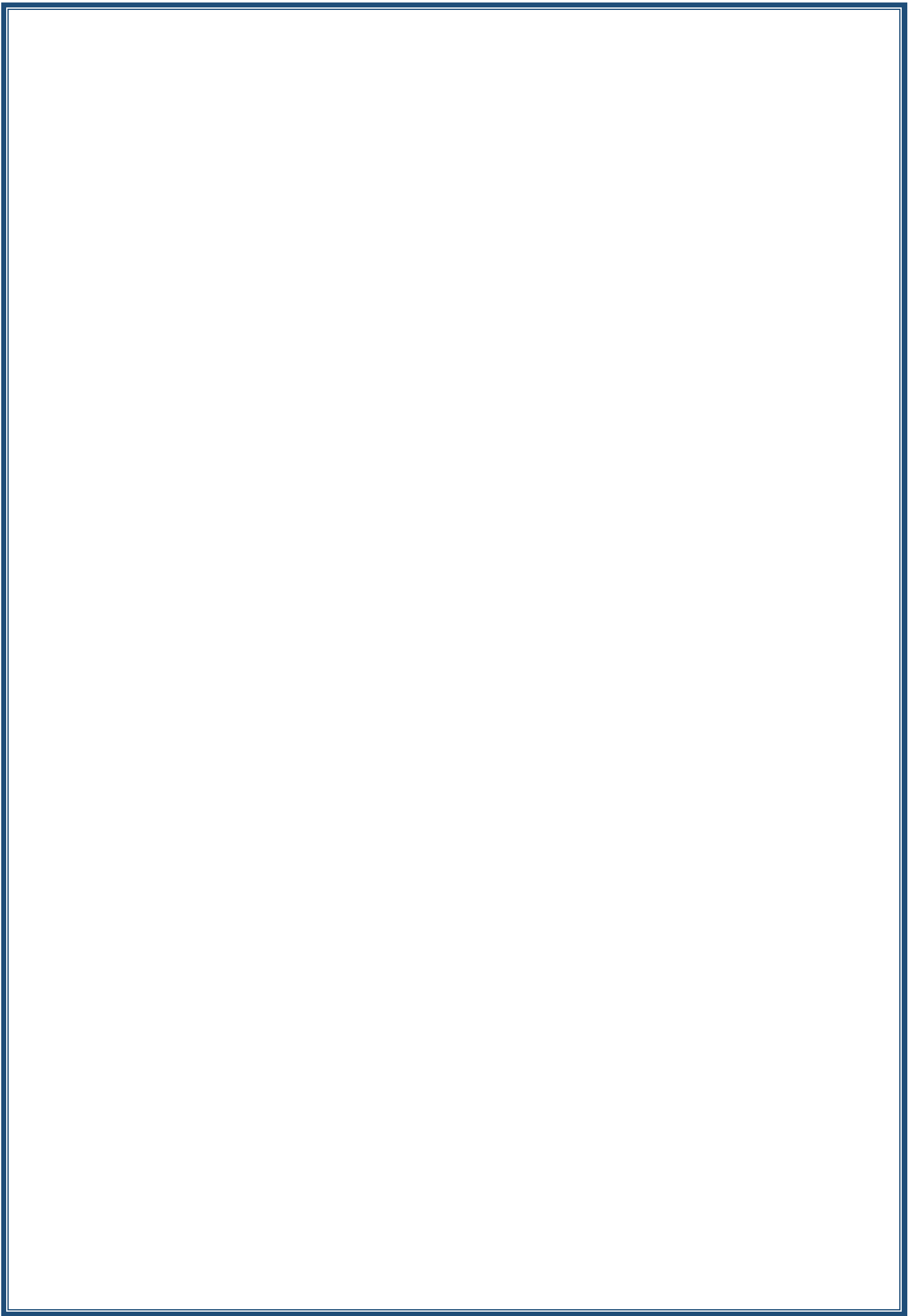
		like karyotyping		Interactive	And Scientific Description
14	2T 2 P	Students will integrate and apply their knowledge pathology through case-based analysis and discussion	Review of General Pathology Case-based discussion	Lectures and PowerPoint slides & Interactive	Weekly, monthly, and a reporting examination And Scientific Description
15	2T 2 P	Students will demonstrate comprehensive understanding and practical application general pathology concepts.	Final Exam Lab & theory exam	Lectures and PowerPoint slides & Interactive	Weekly, monthly, and a reporting examination And Scientific Description

11. Course Evaluation

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

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Robbins and Cotran Pathologic Basis of Disease, 10th Edition. Elsevier 2. Kumar, V., Abbas, A.K., Aster, J.C. (2020). Robbins Basic Pathology, 10th Edition. Elsevier .
Main references (sources)	3. Damjanov, I. (2014). Pathology for the Health Professions, 5th Edition. Elsevier . 4. Wheater's Functional Histology: Text and Colour Atlas, 6th Edition (Young, Lowe, Stevens & Heath) .
Recommended books and references (scientific journals, reports...)	5. Rosai and Ackerman's Surgical Pathology, 11th Edition .
Electronic References, Websites	6. Color Atlas of Pathology: Pathologic Principles, Associated Diseases, and Differential Diagnoses by Ursus-Nikolaus Riederer and Martin Werner



1. Course Name: nutrition	
2. Course Code:	
MTAL2106	
3. Semester / Year:1st course/2025-2026	
4. Description Preparation Date:7/10/2025	
5. Available Attendance Forms:	
6. Number of Credit Hours (Total) / Number of Units (Total)30 hours theory	
7. Course administrator's name (mention all, if more than one name)	
Name: zahraa haziem nadhiem	
Email:zahraahaziem987@gmail.com	
8. Course Objectives	
Course Objecti	1.Cognitive (Knowledge) Objectives By the end of the course, students should be able to: Define the basic concepts and terminology related to nutrition. Identify and describe the essential nutrients (carbohydrates, proteins, fats, vitamins, minerals, and water) and their functions in the human body. Explain the daily nutritional requirements and the factors affecting them (age, gender, activity level, and health status). Describe the processes of digestion, absorption, and metabolism of nutrients. 2. Psychomotor (Skills) Objectives :Students should be able to .Assess the nutritional status of individuals using basic anthropometric and dietary tools Analyze dietary patterns and evaluate their adequacy based on nutritional .recommendations
9. Teaching and Learning Strategies	
Strategy	interactive Lectures) Begin with , focused presentations40.(minutes each topic .Use visuals: diagrams of digestion, nutrient cycles, and food pyramids ask students to discuss answers to small nutrition questions

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction to Nutrition –	nutrition	Lectures and Powerpoint slides	Short theoretical exam
2	2	Macro-nutrients and micro-nutrients			
3	2	Carbohydrates – ,metabolism, glycemic index			
4	2	Proteins – importance for skin			
5	2	Fats –types and metabolism			
6	2	Vitamins – Types, symptoms, in skin and hair health			
7	2	Minerals – cosmetic relevance			
8	2	Water and Electrolytes –			
9	2	Nutrition and Skin Health			

10	2	Nutrition and Hair Health –			
11	2	Special Diets –			
12	2	Dietary Supplements –			
13	2	Malnutrition and obesity			
14	2	Food safety and behavior			
15	2	Cours review			

11. Course Evaluation

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

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	1. Human nutrition(lomer,m.et al) 2. Understanding nutrition- by Eleanor Whitney & Sharon rady 3. WHO nutrition Guidelines
Electronic References, Websites	Michigan.gov wood.osu.edu

Course Description Form

1. Course Name:	
Pharmaceuticals	
2. Course Code:	
MTAL2105	
3. Semester / Year:	
First Course 2024-2025	
4. Description Preparation Date:	
2025-11-2	
5. Available Attendance Forms:	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 hours	
7. Course administrator's name (mention all, if more than one name)	
Name: Maha Hassan Sahi Email: phmhwi76@gmail.com	
8. Course Objectives	
Course Objectives General Objective: To introduce students to the relationship between pharmacology and its applications in the field of cosmetics and laser, helping them understand how pharmacological principles are integrated in cosmetic science.	Specific Objectives: To familiarize students with the basic principles of pharmacology related to cosmetic techniques. To distinguish between different types of drugs used in cosmetic fields such as skin, hair, and nails. To understand the mechanism of drug action at the cellular and tissue levels of the skin.
9. Teaching and Learning Strategies	
Strategy	Teaching and Learning Strategies Strategy:

	Educational Philosophy: Integrating theoretical scientific knowledge with professional practical applications. Interactive Lectures: Encouraging active student participation and engagement. Problem-Based Learning (PBL): Developing critical thinking through real-life case scenarios. Group Discussions: Promoting collaboration and exchange ideas among students.
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction Pharmacology Drug classification Importance cosmetic practice		Theoretical lecture u PowerPoint	Pop Direct ques Attendance Midterm and F Exam
2	4	Pharmacokinetics Absorption, distribution, metabolism, excretion Pharmacodynamics Mechanism of action, dose response, receptor binding		Theoretical lecture u PowerPoint	Pop Direct ques Attendance Midterm and F Exam
3	2	Topical Agents Emollients, retinoids, corticosteroids, antibiotics		Theoretical lecture u PowerPoint	Pop Direct ques Attendance Midterm and F Exam
4	4	Antibiotics and Antiseptics – Use in acne, wound care and infection control Analgesics and Anesthetics – Local anesthetics, pain management in aesthetic practice		Theoretical lecture u PowerPoint	Pop Direct ques Attendance Midterm and F Exam

5	2	Anti-inflammatory and Immunomodulatory Drugs – Steroids, calcineurin inhibitors		Theoretical lecture PowerPoint	Pop Direct ques Attendance Midterm and Final Exam
6	4	Hormonal Therapy – Androgens, estrogens, oral contraceptives Drugs for Pigmentation Hair Disorders – Hydroquinone, minoxidil, finasteride		Theoretical lecture PowerPoint	Pop Direct ques Attendance Midterm and Final Exam
7	2	Botulinum Toxin and Fillers Adverse Drug Reactions Allergic reactions, photosensitivity, pigmentation		Theoretical lecture PowerPoint	Pop Direct ques Attendance Midterm and Final Exam
8	4	Drug Interactions and Contraindications in Cosmetic Practice Skin Lightening and Antiaging Products – Active ingredients and pharmacological roles		Theoretical lecture PowerPoint	Pop Direct ques Attendance Midterm and Final Exam
9	4	Legal and Ethical Aspects Prescription rights, informed consent, product safety Review and Integration Case-based discussions and treatment planning		Theoretical lecture PowerPoint	Pop Direct ques Attendance Midterm and Final Exam

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11. Course Evaluation

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

12. 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 Form

1. Course Name:	
Skincare basics and techniques	
2. Course Code:	
MTAL2101	
3. Semester / Year:	
2025_2026	
4. Description Preparation Date:	
2025	
5. Available Attendance Forms:	
Student attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 Hours/ 15Units	
7. Course administrator's name (mention all, if more than one name)	
Name: Nawres jamal kadhim Email: nawrasjk@yahoo.com	
8. Course Objectives	
Course Objectives	1. Cognitive Objectives: • The student will understand their role and responsibilities in providing cosmetic care. • Befamiliar with the cosmetic materials and products necessary for skin care. • Understand skin types and colors and how to deal with each type. 2. Course Skill Objectives: • Educate the student about the various devices available in cosmetic clinics and skin care centers. • Understand the main features of these devices. • Understand the performance of cosmetic devices before and after the session • Raise academic proficiency and expand students' awareness of the importance of the close relationship between the doctor and the cosmetic technician, work as a single medical team, and filling knowledge gaps to reduce medical errors at all stages of treatment. 3. Affective and Psychological Objectives: * The student will be convinced of the importance of the specialty they are studying. * Appreciate the efforts of the instructors in providing the scientific material.

9. Teaching and Learning Strategies

Strategy	Proficiency in working on all cosmetic device
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theory 2practical	Skin structure identification (models, diagrams)	Introduction to Dermatology: Skin anatomy & physiology	Interactive	Test and apply
2	2 theory 2practical	Facial cleansing steps & product selection	Basic Skin Care Principles: Cleansing, moisturizing, protection	Interactive	Test and apply
3	2 theory 2practical	Skin analysis: Wood's lamp, magnifying lamp	Skin Assessment Techniques	Interactive	Test and apply
4	2 theory 2practical	Case-based discussion & basic diagnosis skills	Common Dermatological Conditions: Acne, pigmentation, dryness	Interactive	Test and apply
5	2 theory 2practical	Product label reading & formulation basics	Cosmetic Science: Active ingredients in skin care products	Interactive	Test and apply
6	2 theory 2practical	Superficial chemical peel demonstration	Therapeutic Techniques I: Exfoliation & peels	Interactive	Test and apply
7	2 theory 2practical	Hands-on facial mask application & microderm	Therapeutic Techniques II: Microdermabrasion, masks	Interactive	Test and apply

8	2 theory 2 practical	Injection tools and materials: demo and handling	Introduction to Medical Injection Techniques	Interactive	Test and apply
9	2 theory 2 practical	PRP preparation steps (simulation)	PRP (Platelet-Rich Plasma): Theory and uses in cosmetics	Interactive	Test and apply
10	2 theory 2 practical	Practice on models with sterile injection technique	Injection Materials: Fillers, Botox (overview)	Interactive	Test and apply
11	2 theory 2 practical	Device demonstration and safety handling	Advanced Skin Care Devices: Laser, RF, ultrasound (overview)	Interactive	Test and apply
12	2 theory 2 practical	Role-play: Ethical dilemmas in aesthetic practice	Ethics in Skin Care Practice	Interactive	Test and apply
13	2 theory 2 practical	Review and discussion of a sample journal article Student presentations: Diagnosis + treatment plan	Research in Dermatology: Basics of scientific method	Interactive	Test and apply
14	2 theory 2 practical	Drafting a mini business plan for a skin care clinic	Business in Skin Care Client interaction, management basics	Interactive	Test and apply
15	2 theory 2 practical	Final Case Study Presentation & Review		Interactive	Test and apply
11. Course Evaluation					
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)			Dermatology (4th ed.) Draelos, Z.D Cosmetic Dermatology		

	Bologna, J.L., Schaffer, J.V., & Cerroni, (2017)
Main references (sources)	Baumann, L. (2009). *Cosmetic Dermatology: Principles and Practice
Recommended books and references (scientific journals, reports...)	*Sadick, N.S. (2018). *PRP and Microneedling in Aesthetic Medicine. * Springer. Thibodeau, G.A., & Patton, K.T. (2018)
Electronic References, Websites	*Cosmetic Dermatology: Products and Procedures (2nd ed.). * WileyBlackwell

Cou Description Formrse

1. Course Name: General physiology

2. Course Code:

MTAL2103

3. Semester / Year: second year- first semester

4. Description Preparation Date:2/10/2025

5. Available Attendance Forms:

Full-time and official attendance hours

6. Number of Credit Hours (Total) / Number of Units (Total)

Theory Lecture: 2 hours, Practical: 2, Total: 4 (2+2) per week
60 hours per semester

7. Course administrator's name (mention all, if more than one name)

Name: Dr. Bassel Adel Ismail

Email: bassel.adel@alayen.edu.iq

8. Course Objectives

General Objective: At the end of the semester, the course provide students with knowledge about Basic general physiology of the human body and students will be able to understand the functions of the various body systems and how to act in normal and emergency sick situations and their relationship to aesthetic and laser.

Specific Objectives: The aim to provide students with basic knowledge of general Physiology and the functions of the human body in particular.
- To be able to understand how the physiological activities of the body are related (activities of the heart, blood circulation, and respiratory system)
- To be able to recognize the effect of the activity of the human body on the environment, respiratory system, nervous system and urinary system and other systems in aesthetic and laser fields.

9. Teaching and Learning Strategies

Strategy

Lectures (Interactive), Role play, Team-based learning presentation) Discussion, Problem solving

10. Course Structure Theoretical

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation
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1	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Introduction to Physiology: Homeostasis, Cell Functions	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion brainstorming and practical discussion	Week exam Scien	y, mo nation ific D
2	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Membrane Transport, Resting Membrane Potential, Endocrine Mechanisms	Attendance • Lectures (interactive) Online lectures (interactive) Use strateg collaborati learning, discussion brainstorm g and practical discussion	Week exam Scien	y, mo nation ific D
3	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Nerve Physiology: Action Potentials and Synapses	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion brainstorming and practical discussion	Week exam Scien	y, mo nation ific D
4	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Muscle Physiology: Types and Contraction Mechanism	Attendance • Lectures (interactive) Online lectures (interactive) Use strateg collaborati learning, discussion brainstorm g and practical discussion	Week exam Scien	y, mo nation ific D
5	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Blood Composition and Functions	Attendance • Lectures (interactive)	Week exam Scien	y, mo nation ific D

				Online lectures (interactive) Use strategies collaborative learning, discussion brainstorming and practical discussion		
6	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Hemostasis and Blood Groups	Attendance • Lectures (interactive) Online lectures (interactive) Use strategies collaborative learning, discussion brainstorming and practical discussion	Weekly examination Scientific D	y, mo nation ific D
7	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Immune System: Basic Functions	Attendance • Lectures (interactive) Online lectures (interactive) Use strategies collaborative learning, discussion brainstorming and practical discussion	Weekly examination Scientific D	y, mo nation ific D
8	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Cardiovascular System: Heart Anatomy and Electrical Activity	Attendance • Lectures (interactive) Online lectures (interactive) Use strategies collaborative learning, discussion brainstorming and practical discussion	Weekly examination Scientific D	y, mo nation ific D
9	2	A1/A2/A4 B1/B2/B3/B4	Cardiac Cycle and Heart Sound	Attendance • Lectures	Weekly examination	y, mo nation

		C 1/C 2/C 3/C 4		(interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion brainstorm g and practical discussion	Scientific D
10	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Respiratory System: Mechanics, Gas Exchange, and Control of Breathing	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion brainstorming and practical discussion	Weekly, mo examination Scientific D
11	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Reproductive Physiology: Male, Female, Pregnancy and Lactation	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion brainstorming and practical discussion	Weekly, mo examination Scientific D
12	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Digestive System: Anatomy, Absorption, Liver and Pancreatic Functions	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion brainstorming and practical discussion	Weekly, mo examination Scientific D
13	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Urinary System: Structure, Filtration, Electrolyte Balance	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion	Weekly, mo examination Scientific D

				brainstorming and practical discussion	
14	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Thermoregulation and System Integration	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
15	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Endocrine system	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions

Syllabus of The Practical Course

1	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Lab safety, Introduction to Hematology Equipment, Hormonal Effects on Blood (Discussion)	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
2	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Blood Glucose Measurement, Case Discussion: Hormonal Disorders and Blood Tests	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
3	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Capillary and Venous Blood Sampling	Attendance • Lectures (interactive)	Weekly, monthly and

			(Manikin Demonstration)	Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	reporting examinations Scientific Discussions
4	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Blood Smear Preparation and Staining	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
5	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Microscopic Examination of Normal Blood Smear WBC and RBC Counting with Hemocytometer	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
6	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Blood Grouping and Rh Typing	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
7	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Hematocrit (PCV) Measurement and Hemoglobin Concentration Test	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions

				practical discussion	
8	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Erythrocyte Sedimentation Rate (ESR) Test	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
9	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Reticulocyte Staining and Observation	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
10	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Observation of Abnormal Blood Smears (Anemia, Infections)	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
11	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Blood Changes During Menstrual Cycle and Pregnancy Testosterone Effect on Blood	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
12	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Liver Function Overview, Serum Protein Measurement Effect of Jaundice on Blood	Attendance • Lectures (interactive) Online lectures (interactive)	Weekly, monthly and reporting examinations

				Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Scientific Discussions
13	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Serum Creatinine and Urea Test Overview Blood Electrolyte Demonstration	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
14	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Effect of Temperature on Blood Viscosity Project: Blood Parameters in Cosmetic Patients	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions
15	2	A1/A2/A4 B1/B2/B3/B4 C 1/C 2/C 3/C 4	Final Practical Exam and Submission of Hematology Portfolio	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly and reporting examinations Scientific Discussions

11. Course Evaluation

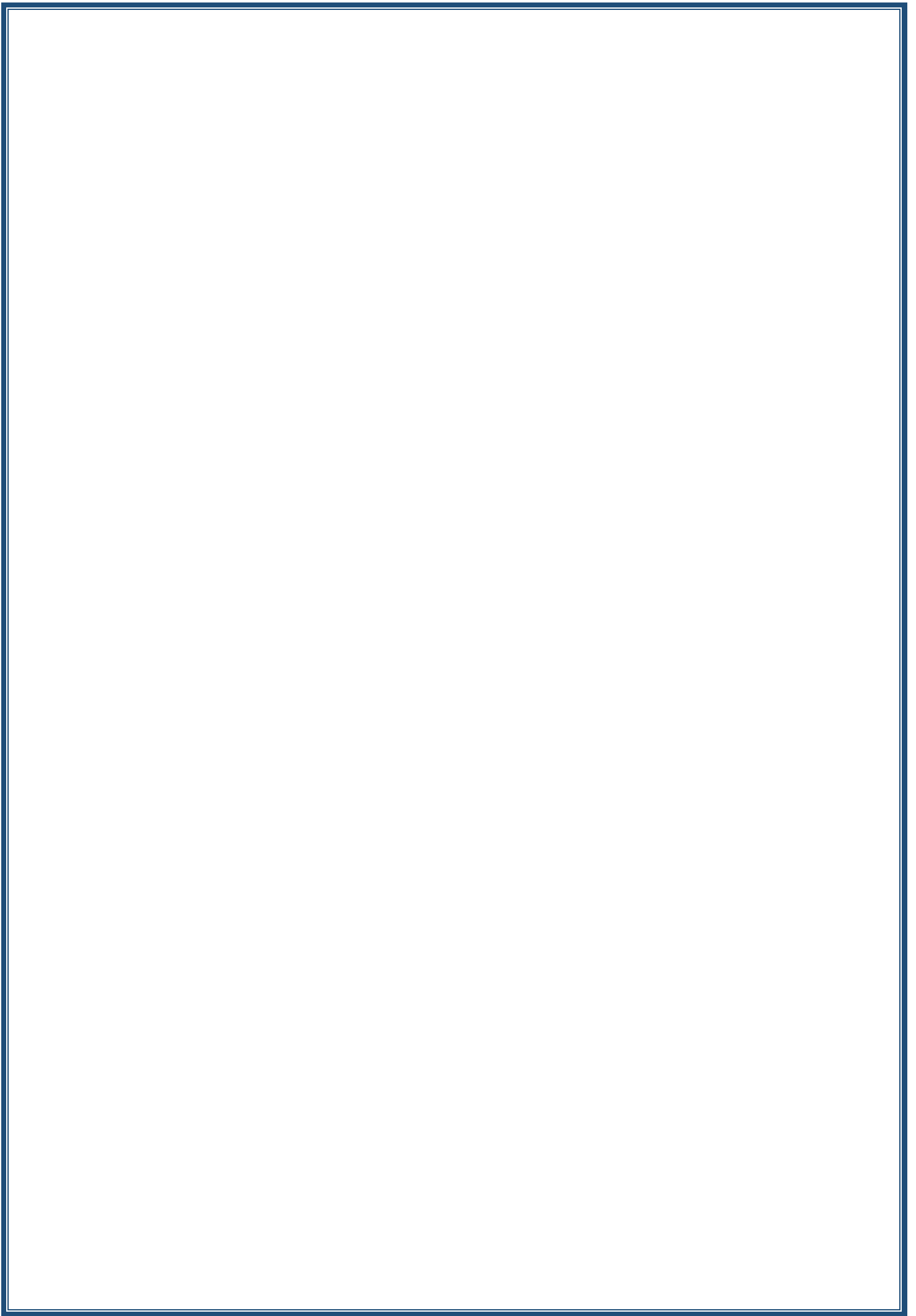
The grade of 100 is distributed according to the student's mandated tasks such as daily preparation, daily, oral, monthly and final examinations: according to the following order

40 degrees midterm exam distributed to 20 degrees theoretical, 15 degrees practical and 5 degrees for participation, attendance and non-class activities

60 degrees final exam distributed to 25 degrees for practical and 35 degrees for theory

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Guyton and Hall , Physiology review 2th edition
Recommended books and references (scientific journals, reports...)	Ganongs' Review of Medical Physiology 26th Edition Elsevier, Sciencedirect springer link, Pdfdrive
Electronic References, Websites	University educational platform www.who.int



1. Course Name: Systemic pathology	
2. Course Code:	
MTAL2204	
3. Semester / Year: 2ndcours/2025-2026	
4. Description Preparation Date: 25/2/2026	
5. Available Attendance Forms:	
6. Number of Credit Hours (Total) /42hours Number of Units (Total)4	
7. Course administrator's name (mention all, if more than one name)	
Name: zahraa haziem nadhiem Email: zahraahaziem987@gmail.com	
8. Course Objectives	
Course Objecti	• Provide students with the fundamental concepts of pathology and an understanding of the mechanisms underlying cellular and tissue alterations. • Identify the various types of inflammation and the associated histopathological changes. • Understand circulatory disorders and the pathological changes that result from them. • Distinguish between different patterns of cellular injury and necrosis and recognize their key features. • Recognize the basic principles of neoplasia and differentiate between benign and malignant tumors. • Develop skills in interpreting histological slides and pathological images and integrating them with theoretical knowledge.
9. Teaching and Learning Strategies	
Strategy	• Lectures to deliver core pathology concepts and essential theoretical knowledge. • Practical sessions for examining histological slides and gross pathology images. • Interactive discussions and visual presentations to reinforce understanding. • Encouraging self-directed learning and regular revision.

- Short quizzes and continuous assessment to monitor progress.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		Introduction to Systemic Pathology	Lectures and Powerpoint slides	Short theoretical exam
2	2		Cardiovascular I : Atherosclerosis, HTN		
3	2		Cardiovascular II: Ischemic Heart Disease		
4	2		Respiratory I: Pneumonia ,TB ,		
5	2		Respiratory II: COPD, Lung, Cancer		
6	2		GI I: Esophagus & Stomach		
7	2		GI II: Liver, Pancreas , Intestine		
8	2		Renal Pathology		
9	2				

10	2		Hematopoietic I: Anemia , Leukemia		
11	2		Hematopoietic II : Lymphomas		
12	2		Endocrine Pathology		
13	2		Breast Pathology		
14	2		Genital Tract Pathology		
15	2		CNS Pathology Meningitis, glioblastoma		
15	2		Final Exam Lab + theoretical case exam		

11. Course Evaluation

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

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	1. Kumar, V., Abbas, A.K., Aster, J.C. (2020). Robbins and Cotran Pathologic Basis of Disease, 10th Edition. Elsevier. 2. Kumar, V., Abbas, A.K., Aster, J.C. (2017). Robbins Basic Pathology, 10th Edition. Elsevier. 3. Damjanov, I. (2014). Pathology for the Health Professions, 5th Edition. Elsevier. 4. Wheater's Functional Histology: A Text and Colour Atlas, 6th Edition (Young, Lowe, Stevens & Heath). 5. Rosai and Ackerman's Surgical Pathology, 11th Edition. 6. Color Atlas of Pathology: Pathologic Principles, Associated Diseases, and Differential Diagnoses by Ursus-Nikolaus Riede & Martin Werner

Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:nutrition 2	
2. Course Code:	
MTAL2206	
3. Semester / Year:2ndcours/2025-2026	
4. Description Preparation Date:25/11/2025	
5. Available Attendance Forms:	
6. Number of Credit Hours (Total) /36hours Number of Units (Total)3	
7. Course administrator's name (mention all, if more than one name)	
Name: zahraa haziem nadhiem Email:zahraahaziem987@gmail.com	
8. Course Objectives	
Course Objecti	1.Cognitive (Knowledge) Objectives By the end of the course, students should be able to: Define the basic concepts and terminology related to nutrition. Identify and describe the essential nutrients (carbohydrates, proteins, fats, vitamins, minerals, and water) and their functions in the human body. Explain the daily nutritional requirements and the factors affecting them (age, gender, activity level, and health status). Describe the processes of digestion, absorption, and metabolism of nutrients. 2. Psychomotor (Skills) Objectives :Students should be able to .Assess the nutritional status of individuals using basic anthropometric and dietary tools Analyze dietary patterns and evaluate their adequacy based on nutritional .recommendations

9. Teaching and Learning Strategies

Strategy	interactive Lectures) Begin with , focused presentations40.(minutes each topic Use visuals: diagrams of digestion, nutrient cycles, and food .pyramids ask students to discuss answers to small nutrition questions
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	– Review of Basic Nutrition – Macronutrients recap and metabolic pathways	nutrition	Lectures andPowerpoint slides	Short theoretical exam
2	2	Advanced Micronutrients – Trace elements and their role in skin, hair, and nails			
3	2	Nutritional Deficiencies and Their Cosmetic Manifestations			
4	2	Nutrition and Wound Healing – Role of vitamins, proteins, and minerals			

5	2	Hydration and Skin/Nail Health Importance of water and electrolytes			
6	2	Nail Anatomy and Physiology – Structure, growth cycle			
7	2	Common Nail Disorders – Onychomycosis, brittle nails, paronychia Nutritional			
8	2	Influence on Nail Disorders – Causes and prevention			
9	2	Cosmetic Nail Care Products – Ingredients and effects			
10	2	Nail Cosmetics and Enhancements – Application and safety			
11	2	Nail Disorders in Systemic Diseases – Diabetes, psoriasis			
12	2	Effects of External Factors on Nails –			

13	2	Trauma, chemicals, environment			
		Patient Education and Counseling on Nutrition and Nail Care			
14	2	Integration of Nutrition and Nail Care in Cosmetic Practice			
15	2	Review and Student Presentations – Case studies and practical exam			

11. Course Evaluation

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

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	1. Nutrition and Skin by Marian L. Morais and Mary L. Gavin 2. • Nail Disorders: Diagnosis and Management by Antonella Tosti 3. • Clinical nutrition guidelines and cosmetic nail care manuals

	4. • Research articles on nutrition and n health 5. Human nutrition(lomer,m.et al) 6. Understanding nutrition- by Eleanor Whitney & Sharon rady 7. WHO nutrition Guidelines
Electronic References, Websites	Michigan.gov wood.osu.edu

Course Description Form

1. Course Name: Skin Care Pharmacology
2. Course Code:
MTAL2205
3. Semester / Year: 2end., 2026
4. Description Preparation Date: 5/2/2026
5. Available Attendance Forms:

6. Number of Credit Hours (Total) / Number of Units (Total)

15 week 2hr 4 unit

7. Course administrator's name (mention all, if more than one name)

Name: asst .lec . ph Maha Hassan Sahi

Email:

8. Course Objectives

Course Objective

In the final of this course student can understand drug

Related to laser cosmetic and there action mechanism of action adve

effect and any information about dug disease related to skin care

9. Teaching and Learning Strategies

Strategy

1.Simulation-Based Learning: Utilizing various diagnos techniques and simulation labs to train students on realistic clinical scenarios in a safe environment.

2. Problem-Based Learning: Presenting complex clinical cases to students to analyze, enhancing critical thinking and decision making skills.

3. Direct Clinical Education: Engaging students in practical training in both real and virtual clinical settings.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2hr	General aspect Of pharmacology related to cosmetic	ntroduction to Skin Care Pharmaceuticals – Definitions, scope, and importance	A, Theoretical lecture using program PowerPoint	Mid term Final exam
2	2hr	Define classify Emollients, moisturizers, cleansers,	Emollients, moisturizers, cleansers, sunscreens	A, Theoretical lecture using program PowerPoint	

3+4	4	Topical Anti-inflammatory Agents – Corticosteroids and non-steroidal agents	Topical Anti-inflammatory Agents – Corticosteroids and non-steroidal agents	A, Theoretical lecture using program PowerPoint	
5,6	4	Keratolytic Agents – Salicylic acid, urea, alpha and beta hydroxy acids	Keratolytic Agents – Salicylic acid, urea, alpha and beta hydroxy acids	A, Theoretical lecture using program PowerPoint	
7	2	Skin Lightening Agents – Hydroquinone, kojic acid, azelaic	Skin Lightening Agents – Hydroquinone, kojic acid, azelaic acid		
8,9	4	Sunscreens – Types (chemical vs physical), SPF, broad-spectrum protection Demonstration of sunscreen application and SPF testing	Sunscreens – Types (chemical vs physical), SPF, broad-spectrum protection Demonstration of sunscreen application and SPF testing	A, Theoretical lecture using program PowerPoint	
10,11	4	Anti-aging Pharmaceuticals – Peptides, antioxidants, growth factors Practical: Formulating and evaluating anti-aging products Acne Pharmaceuticals – Benzoyl	Peptides, antioxidants, growth factors Practical: Formulating		

12	2	Moisturizers and Barrier Repair Agents – Ceramides, lipids	Moisturizers and Barrier Repair Agents – Ceramides, lipids		
14,,15	6	Cosmeceuticals vs Pharmaceuticals – Regulatory and functional differences Case discussions on product claims and patient advice 13 Adverse Reactions and Safety – Allergies, irritations, photosensitivity	Cosmeceuticals vs Pharmaceuticals – Regulatory and functional differences Case discussions on product claims and patient advice Adverse Reactions and Safety – Allergies, irritations, photosensitivity Practical: Identifying and managing adverse skin reactions 14 Prescription vs Over-the-counter Skin Care Products	A, Theoretical lecture using program PowerPoint	

11. Course Evaluation

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

Assessment and Grading (Total: 100 Marks)

• Continuous Assessment (60 marks):

- Daily preparation
- Quizzes and monthly exams
- Written assignments
- Reports
- Attendance and participation

• Final Examination (40 marks):

- Written/Theoretical exam: 35 marks

1. • Practical exam: 25 marks

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

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Primary Textbook: <i>Dermatologic Pharmacology</i> Kenneth A. Arndt and Jeffrey Sobel
Main references (sources)	<i>Cosmetic Dermatology: Products Procedures</i> by Zoe Diana
Recommended books and references (scientific journals, reports...)	○ Research articles on skin pharmacology ○ Product monographs clinical guidelines
Electronic References, Websites	

Course Description Form

1. Course Name:
disorder of Skin ,hair and Nails
2. Course Code:
MTAL2101
3. Semester / Year:
2025_2026
4. Description Preparation Date:
20/2/2026
5. Available Attendance Forms:
Student attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
15 week 2hr 4 unit
7. Course administrator's name (mention all, if more than one name)
Name: Nawres jamal kadhim Email: nawrasjk@yahoo.com
8. Course Objectives

Course Objectives	1. Cognitive Objectives: • The student will understand their role responsibilities to deal with skin, hair and abnormalities. • Dealing with contagious skin, hair and problems with • Understand skin, hair and nail diseases 2. Course Skill Objectives: • Educate the student about the various skin, and nail examination devices • Understand the main features of these devices • Understand the diseases complications • Raise academic proficiency and expand student awareness of the importance of the close relationship between the doctor and the cosmetic technician, working as a single medical team, filling knowledge gaps to reduce medical errors at all stages of treatment. 3. Affective and Psychological Objectives: * The student will be convinced of the importance of the specialty they are studying. * Appreciate the efforts of the instructors providing the scientific material.
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9. Teaching and Learning Strategies

Strategy	Proficiency in dealing with skin, hair and nail abnormalities
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theory 2 practical	Skin structure identification (models, diagrams)	Introduction to Skin, Hair, and Nails (anatomy)	Interactive	Test and application

2	2 theory 2 practical	Skin diseases diagram	Common Skin Disorders Eczema, Psoriasis, and Dermatitis	Interactive	Test and apply
3	2 theory 2 practical	Microscopic identification and hygiene protocols	Infectious Skin Diseases –bacterial ,viral and fungal infections	Interactive	Test and apply
4	2 theory 2 practical	Diagnosis and documentation of pigment changes	Pigmentary disorders vitiligo , melisma , hyperpigmentation	Interactive	Test and apply
5	2 theory 2 practical	Cases study and treatment planning	Acne vulgaris pathogenesis , type ,and clinical feature	Interactive	Test and apply
6	2 theory 2 practical	Scalp examination hair pull test	Hair disorders1 alopecia areata , androgenic alopecia	Interactive	Test and apply
7	2 theory 2 practical	Patient evaluation and treatment options	Hair disorders 2 hirsutism telogen effluvium	Interactive	Test and apply
8	2 theory 2 practical	Nail examination and sample collection technique	Nail disorders onychomycosis , paronychia and nail psoriasis	Interactive	Test and apply
9	2 theory 2 practical	Dermoscopy basics and lesion documentation	Benign and malignant skin lesions moles, wart ,basal cell carcinoma	Interactive	Test and apply
10	2 theory 2 practical	Assessment of skin damage and patient education	Photosensitivity and photo dermatitis	Interactive	Test and apply
11	2 theory 2 practical	Case discussions on cosmetic management and laser options	Cosmetic implications of skin disorders	Interactive	Test and apply
12	2 theory 2 practical	Demonstration of laser parameters	Laser therapy in skin ,hair and nail disorders	Interactive	Test and apply

		and safety in treatment			
13	2 theory 2 practical	Recognition and management of adverse effects	Complication and side effects of treatment	Interactive	Test and apply
14	2 theory 2 practical	Role playing patient consultations and care plans	Patient counseling and management planning	Interactive	Test and apply
15	2 theory 2 practical	Practical exam and discussion of complex cases	Course review and case presentation	Interactive	Test and apply

11. Course Evaluation

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

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Dermatology by Jean L. Bolognia Fitzpatrick's Dermatology in General Medicine
Main references (sources)	Dermatology by Jean L. Bolognia
Recommended books and references (scientific journals, reports...)	Clinical manuals on hair and nail disorders
Electronic References, Websites	Laser treatment guidelines for dermatologic condition

1. Course Name: Computer and Artificial Intelligence	
2. Course Code: MTAL2209	
3. Semester / Year: Second semester / 2025–2026	
4. Description Preparation Date: 27/2/ 2026	
5. Available Attendance Forms: My presence in location at the university	
6. Number of Credit Hours (Total) / Number of Units (Total):	
56 hours (28 theoretical + 28 practical) / 2 units	
7. Course administrator's name (mention all, if more than one name)	
Name: MS.C Wassim Talib Hatem	
Email: wissam.talib@alayen.edu.iq	
8. Course Objectives	
Course Objectives	–Security and Networks: Understanding the basics of networks, their types, and components. –Introduction to Artificial Intelligence: Understanding the definition of AI, its history, technologies, and associated ethical challenges. –E–Commerce: Understanding electronic banking services such as phone banking, e-messaging, and alerts.
9. Teaching and Learning Strategies	

Strategy	- Interactive lectures - Practical review - Practical training - Lecture documentation
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
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Syllabus of The Theoretical Course

1	2 hour	Understand the basics of networks, their types, and components	Security and Networking	Lectures, demonstrations, group discussions.	Written tests, practical troubleshooting assessment
2	2 hour	Understand electronic bank services like phone banking, SMS alerts.	E-commerce	Lectures, case studies, discussions on practical applications	Written exams, presentations on practical e-banking examples.
3	2 hour	Identify common hardware and software problems in computers	Computer Troubleshooting	Workshops, hands-on practical exercises.	Practical tests, assessment of troubleshooting tools use.
4	2 hour	Understand the definition and history of AI.	Introduction to AI	Interactive lectures, historical review of AI, video presentations.	Written exams, research projects on AI history and techniques.
5	2 hour	Explore the role of AI in smartphones and virtual assistants.	AI in Daily Life	Practical sessions on AI applications in smartphones	Short reports on AI use in daily life.
6	2 hour	Discover AI applications in education, healthcare, finance, and transportation.	Applications of AI	Case studies, group discussions, presentations.	Research reports, presentations on AI applications.
7	2 hour	Understand AI's impact on society and international	AI and Society	Lectures, interactive discussions on AI's societal impact.	Analytical reports, group discussions and evaluations.

		relations			
8	2 hour	Discuss AI ethics, privacy, and its effect on the job market	Ethical Challenges of AI	Workshops, discussions on AI ethics.	Research papers, group discussions, case study evaluations.
9	2 hour	Explore future trends and emerging AI technologies.	The Future of AI	Interactive lectures, exploration of recent research.	Research projects, presentations on future AI trends.

11. Course Evaluation

60% theoretical and 40% practical

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	"Artificial Intelligence: A Modern Approach" by Stuart Russell, Peter Norvig
Main references (sources)	"Introduction to AI Robotics" by Robin Murphy
Recommended books and references (scientific journals, reports...)	Articles from IEEE Computer Society AI industry reports from McKinsey & Company
Electronic References, Websites	edX.org (Open courses on e-commerce and network security) arxiv.org (AI and machine learning research papers)

Course Description Form

1. Course Name:	
General Microbiology	
2. Course Code:	
MTAL 2203	
3. Semester / Year: First year- second semester	
second year- second semester	
4. Description Preparation	
26/2/2026	
5. Available Attendance Forms:	
Full-time and official attendance hours	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theory Lecture: 2 hours , Practical: 2 , Total: 4 (2+2) per week 60 hours per semester	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Bassel Adel Ismail Email: bassel.adel@alayen.edu.iq	
8. Course Objectives	
Course Objectives By the end of this course, students will be able to: □ Understand the fundamental concepts microbiology relevant to aesthetic and laser technology. □ Identify major groups of microorganisms including bacteria, viruses, fungi, and parasites. □ Recognize the role of microbes in skin health, infections, and cosmetic procedure □ Apply laboratory techniques for microbial identification and infection control in clinical practice.	Understanding the functions of different body systems. A– Cognitive objectives/ knowledge: The student will be able to: A1– The student should learn about the Microbiology fields and its components. A2 – He is able to the biological characteristics of different groups of microorganisms. A3– The students will learn about the diseases caused by the microorganisms and specially on skin, nails and hairs A4– The students will learn about the benefits of the microorganisms specially on skin, nails and hair B– Skills B1 – The student will be able to use devices and tools in the laboratory To perform microbiological tests and microbial identification B2 – He will be able to use the vocabulary and skills

	acquired in the course in their specialty to perform the best communication with their patients microbiological extract in aesthetic domains C – Values/ ethics C1 – Commitment to updating knowledge and skills through participation in training courses and scientific conferences
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9. Teaching and Learning Strategies

Strategy	Lectures (Interactive), Role play, Team-based learning presentation) Discussion, Problem solving
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10. Course Structure Theoretical

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	A1/A2/A3/A4 B1/B2 C 1	Introduction to Microbiology – History, scope, a importance in cosmetic practice	Attendance • Lecture (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion
2	2	A1/A2/A3/A4 B1/B2 C 1	Structure and Classification of Microorganisms – Bacteria, viruses, fungi, parasites	Attendance • Lecture (interactive) Online lectures (interactive) Use strategy collaborative learning, discussion,	Weekly, monthly Scientific Discussion

				brainstorming and practical discussion		
3	2	A1/A2/A3/A4 B1/B2 C 1	Bacterial Morphology and Physiology	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	Learning and Assessment
4	2	A1/A2/A3/A4 B1/B2 C 1	Growth and Nutrition of Microorganisms	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	Learning and Assessment
5	2	A1/A2/A3/A4 B1/B2 C 1	Viruses – Structure, replication, and role in skin infections	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	Learning and Assessment
6	2	A1/A2/A3/A4 B1/B2 C 1	Fungi – Dermatophytes, yeasts, and molds relevant to skin diseases	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	Learning and Assessment
7	2	A1/A2/A3/A4 B1/B2 C 1	Parasites and Their Role	Attendance • Lectures (interactive) Online lectures (interactive)	Weekly, monthly Scientific Discussion	Learning and Assessment

			in Skin Disorders	Use strategy collaborative learning, discussion, brainstorming and practical discussion		
8	2	A1/A2/A3/A4 B1/B2 C 1	Microbial Genetics and Antibiotic Resistance	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	Weekly, monthly Scientific Discussion
9	2	A1/A2/A3/A4 B1/B2 C 1	Infection and Immunity – Host defense and microbial pathogenicity	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	Weekly, monthly Scientific Discussion
10	2	A1/A2/A3/A4 B1/B2 C 1	Skin Microbiome – Normal flora and its importance in skin health	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	Weekly, monthly Scientific Discussion
11	2	A1/A2/A3/A4 B1/B2 C 1	Common Skin Infections Bacterial, viral, fungal	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	Weekly, monthly Scientific Discussion
12	2	A1/A2/A3/A4 B1/B2	Sterilization and Disinfection	Attendance • Lectures (interactive)	Weekly, monthly Scientific Discussion	Weekly, monthly Scientific Discussion

		C 1	Principles and methods	Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion		
13	2	A1/A2/A3/A4 B1/B2 C 1	Infection Control in Cosmetic and Laser Settings	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	y and ession
14	2	A1/A2/A3/A4 B1/B2 C 1	Antibiotics and Antimicrobial Agents Cosmetic Practice	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	y and ession
15	2	A1/A2/A3/A4 B1/B2 C 1	Review and Integration – Case presentations and practical exam	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	Weekly, monthly Scientific Discussion	y and ession

Syllabus of The Practical Course

1	2	A1/A2/A3/A4 B1/B2 C 1	Introduction to microscopy and lab safety protocols	Attendance • Lectures (interactive) Online lectures (interactive) Use strategy, collaborative learning, discussion, brainstorming and practical discussion	V k n th a re rt g e n a n	
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					S n c D u o
2	2	A1/A2/A3/A4 B1/B2 C 1	Microscopic examination of prepared slides	Attendance • Lectu (interactive) Online lectures (interactive) Use strateg collaborativ learning, discussion, brainstormi and practic discussion	V k n th a re rt g e n a n S n c D u o
3	2	A1/A2/A3/A4 B1/B2 C 1	Staining techniques: Gram staining	Attendance • Lectu (interactive) Online lectures (interactive) Use strateg collaborativ learning, discussion, brainstormi and practic discussion	V k n th a re rt g e n a n S n c D u o
4	2	A1/A2/A3/A4 B1/B2 C 1	Culturing methoc streak plate technique	Attendance • Lectu (interactive) Online lectures (interactive) Use strateg collaborativ learning, discussion, brainstormi	V k n th a re rt g e

				and practice discussion	n a n S n c D u o
5	2	A1/A2/A3/A4 B1/B2 C 1	Viral culture basics and identification	Attendance • Lectu (interactive) Online lectures (interactive) Use strateg collaborativ learning, discussion, brainstormi and practice discussion	V k n th a re rt g e n a n S n c D u o
6	2	A1/A2/A3/A4 B1/B2 C 1	Fungal culture ar KOH preparation	Attendance • Lectu (interactive) Online lectures (interactive) Use strateg collaborativ learning, discussion, brainstormi and practice discussion	V k n th a re rt g e n a n S n c D u o
7	2	A1/A2/A3/A4 B1/B2 C 1	Identification of common parasites affecting skin	Attendance • Lectu (interactive) Online lectures (interactive) Use strateg collaborativ	V k n th a re

				learning, discussion, brainstorming and practical discussion	rt g e n a n S n c D u o
8	2	A1/A2/A3/A4 B1/B2 C 1	Antibiotic sensitivity testing (Kirby-Bauer method)	Attendance • Lectures (interactive) Online lectures (interactive) Use strategies collaboratively learning, discussion, brainstorming and practical discussion	V k n th a re rt g e n a n S n c D u o
9	2	A1/A2/A3/A4 B1/B2 C 1	Immunology basic and serological testing	Attendance • Lectures (interactive) Online lectures (interactive) Use strategies collaboratively learning, discussion, brainstorming and practical discussion	V k n th a re rt g e n a n S n c D u o
10	2	A1/A2/A3/A4 B1/B2 C 1	Sampling techniques and	Attendance • Lectures (interactive)	V k n

			microbial flora identification	Online lectures (interactive) Use strategic collaborative learning, discussion, brainstorming and practical discussion	th a re rt g e n a n S n c D u o
11	2	A1/A2/A3/A4 B1/B2 C 1	Diagnosis and lab investigation skin infections	Attendance • Lectures (interactive) Online lectures (interactive) Use strategic collaborative learning, discussion, brainstorming and practical discussion	V k n th a re rt g e n a n S n c D u o
12	2	A1/A2/A3/A4 B1/B2 C 1	Practical sterilization techniques and disinfectant testing	Attendance • Lectures (interactive) Online lectures (interactive) Use strategic collaborative learning, discussion, brainstorming and practical discussion	V k n th a re rt g e n a n S n c D u o

13	2	A1/A2/A3/A4 B1/B2 C 1	Designing infection control protocols	Attendance • Lectu (interactive) Online lectures (interactive) Use strateg collaborativ learning, discussion, brainstormi and practic discussion	V k n th a re rt g e n a n S n c D u o
14	2	A1/A2/A3/A4 B1/B2 C 1	Case studies on antimicrobial use and resistance	Attendance • Lectu (interactive) Online lectures (interactive) Use strateg collaborativ learning, discussion, brainstormi and practic discussion	V k n th a re rt g e n a n S n c D u o
15	2	A1/A2/A3/A4 B1/B2 C 1	Comprehensive practical skills assessment	Attendance • Lectu (interactive) Online lectures (interactive) Use strateg collaborativ learning, discussion, brainstormi and practic discussion	V k n th a re rt g e n a n S n c

					L u o
11. Course Evaluation					
The grade of 100 is distributed according to the student's mandated tasks such as daily preparation, daily, oral, monthly and final examinations: according to the following order 40 degrees midterm exam distributed to 20 degrees theoretical, 15 degrees practical and 5 degrees for participation, attendance and non-class activities 60 degrees final exam distributed to 25 degrees for practical and 35 degrees for theory					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if a					
Main references (sources)		<i>Medical Microbiology</i> by Jawetz, Melnick Adelberg ❑ <i>Microbiology: An Introduction</i> Tortora, Funke & Case ❑ Laboratory manuals for microbiology techniques ❑ Current guidelines on infection control and antimicrobial stewardship			
Recommended books and references (scientific journals, reports...)		Elsevier, Sciencedirect springer link, Pdfdrive			
Electronic References, Websites		University educational platform www.who.int			

Course Description Form

1. Course Name:	
Laser and Light-Based Aesthetic Technologies	
2. Course Code:	
MTAL2202	
3. Semester / Year:	
Stage 2	
4. Description Preparation Date:	
2026\2\7	
5. Available Attendance Forms:	
6. Number of Credit Hours (15 weeks 2 hours) / Number of Units (4)	
7. Course administrator's name (mention all, if more than one name)	
Name: rasha talal Email: soonbx86hsy.25hfy@gmail.com	
8. Course Objectives	
Course Objectives 1-Understand the nature of light and its wave-particle duality as a foundation for laser operation. 2-Explain the basic physical principles of lasers including spontaneous emission, stimulated emission, and population inversion. 3-Identify the main components of a laser system and describe their functions. 4-Distinguish between different types of lasers based on their active media and modes of operation. 5-Analyze the fundamental properties of laser beams, such as coherence, monochromaticity, directionality, and intensity.	
9. Teaching and Learning Strategies	
Strategy	1-Interactive Lectures

	To introduce and explain fundamental concepts of laser physics while encouraging student participation and discussion. Concept-Based Learning 2-Focusing on core physical principles such as the nature of light, stimulated emission, and population inversion. Visual Presentations 3-Use of slides, diagrams, and schematic illustrations to explain laser components, beam properties, and operating mechanisms. 4-Application-Oriented Learning Linking theoretical concepts to real-world applications of lasers in medicine, industry, science, and communications. 5-Classroom Discussions Promoting critical thinking through guided discussions laser properties and laser-matter interaction.
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
One	2		1Introduction to Laser Physics		
Two	2		2-Skin Anatomy Related to Laser Applications		
three	2		3-Laser-Tissue Interaction		
four	2		4-Types of Lasers: Ablative and Non-Ablative		
five	2		5-Laser Safety Standards and Protocols		

six	2		6-Hair Removal with Laser		
seven	2		7-Vascular and Pigmented Lesion Treatment		
eight	2		8-Fractional Laser Technology		
nine	2		9-Intense Pulsed Light (IPL) Technology		
ten	2		10-LED Light Therapy: Red, Blue, and Infrared		
11	2		11-Complications and Risk Management		
12	2		12-Client Consultation and Skin Prep		
13	2		13-Ethical and Legal Aspects in Laser Practice		
14	2		14-Review of Combined Modalities (Laser + Other Techniques)		
15			Final exam		

11. Course Evaluation

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

12. 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 Form

1. Course Name:	
First aid	
2. Course Code:	
MTAL2208	
3. Semester / Year:	
2025–2026	
4. Description Preparation Date:	
2026	
5. Available Attendance Forms:	
Face-to-face : Electronic attendance forms and manual attendance sheets approved by the department are used to record and monitor students' attendance during lectures and practical sessions.	
6. Number of Credit Hours (3) / Number of Units (2)	
7. Course administrator's name (mention all, if more than one name)	
Name: Abdulrahman Abaas Jasim Email: Abdulrahman.A.Albattat@alayer.edu.iq	
8. Course Objectives	
Course Objectives	By the end of this course, students will be able to: - Understand the principles and importance of first aid in aesthetic and laser practice settings. - Recognize and respond effectively to common emergencies and injuries. - Perform essential first aid techniques to stabilize patients before professional medical help arrives. - Apply first aid knowledge to prevent complications and promote patient safety.

9. Teaching and Learning Strategies

Strategy	• Lectures: Present key concepts and theoretical knowledge. • Demonstrations: Show practical first aid techniques step by step. • Hands-on Practice: Allow students to practice skills in simulated scenarios. • Group Discussions: Encourage problem-solving and experience sharing. • Case Studies: Analyze real-life emergency situations for critical thinking. • Multimedia Resources: Use videos and interactive materials to enhance learning.
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10. Course Structure

Week	Week	Required Learning Outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	2	Understand the concept, goals, and ethical considerations of first aid	Introduction to First Aid	Lecture, Discussion	Quiz
2	2	Demonstrate the steps of adult cardiopulmonary resuscitation	Cardiopulmonary Resuscitation (CPR)	Lecture, Demonstration, Practice	Practical Test
3	2	Explain the use and safety of AED devices	Automated External Defibrillator (AED)	Demonstration, Hands-on Training	Practical Evaluation
4	2	Manage airway obstruction and choking emergencies	Airway Management	Demonstration, Simulation	Observation
5	2	Identify types of bleeding and apply appropriate wound care	Bleeding Control and Wound Care	Lecture, Practical Training	Skill Assessment
6	2	Recognize signs of shock and apply basic management	Shock Management	Case Simulation	Quiz
7	2	Classify burns and provide appropriate first aid treatment	Burns	Demonstration, Practical	Practical Test
8	2	Identify fractures and apply immobilization techniques	Fractures and Sprains	Demonstration, Practice	Skill Evaluation
9	2	Recognize poisoning symptoms and perform first aid response	Poisoning	Lecture, Case Study	Written Test
10	2	Manage heatstroke and hypothermia emergencies	Heat and Cold-Related Emergencies	Lecture, Practical	Quiz
11	2	Provide first aid for diabetic emergencies, seizures, and allergies	Medical Emergencies	Role Playing	Observation
12	2	Identify eye injuries and apply first aid management	Eye Injuries	Demonstration	Practical Assessment
13	2	Perform basic patient assessment and measure vital signs	Patient Assessment and Vital Signs	Practical Training	Skill Test

14	2	Develop emergency action plans in clinical or cosmetic settings	Emergency Action Plans	Workshop, Group Work	Assignment
15	2	Review course knowledge and demonstrate practical first aid skills	Course Review and Final Practical Exam	Review Session	Practical Exam

11. Course Evaluation

Course Evaluation : The total course grade is **100 marks**, distributed as follows:

1. Continuous Assessment (40 Marks):

- **Theoretical (25 marks):** Includes quizzes, reports, seminars, and attendance.
- **Practical (15 marks):** Based on practical performance, participation, and skills assessment during laboratory sessions.

2. Final Examination (60 Marks):

- **Theoretical Exam (35 marks).**
- **Practical Exam (25 marks).**

Summary:

- **Total Theoretical Marks:** 70
- **Total Practical Marks:** 30
- **Total Course Marks:** 100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Clement, I. (2013). <i>Textbook on First Aid and Emergency Nursing</i>. JAYPEE BROTH PUBLISHERS. 2. Lillywhite, R., & Rippingale, M. (Eds) (2025). <i>Textbook of equine veterinary nursing</i>. John Wiley & Sons.
Main references (sources)	• <i>First Aid Manual</i> by St John Ambulance • <i>American Heart Association (AHA) CPR and First Aid Guidelines</i> • Practical guides and simulation videos • Local emergency protocols and legal considerations
Recommended books and references (scientific journals, reports...)	

Electronic References, Websites	
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