EUROPEAN UNIVERSITY OF LEFKE

DEPARTMENT OF PHARMACY

PROGRAMME HANDBOOK

2026

PROGRAM INFORMATION

Program Name and Degree Awarded: Faculty of Pharmacy/ Pharmacist

Duration of Studies: 5 years

Total Credits / ECTS

Language of Instruction: English

Mission

Our mission is to educate pharmacists who actively participate in both theoretical and practical applications of training; who internalize learning, establish connections between knowledge domains, inquire, research, remain curious, and adopt lifelong learning as a lifestyle; and who remain committed to ethical principles and values.

Vision:
Our vision is to train pharmacists with a scientific perspective, who will serve society by analyzing and addressing healthcare needs, taking part in the improvement of health, and becoming reliable consultants and researchers.

Program Objectives

In global health policies, the pharmacist's role involves consultancy, ensuring the protection of health in accordance with standards, and contributing to disease prevention and monitoring. Preventive health policies, especially in today's 2rofe challenged by crises such as pandemics, assign pharmacists an even more vital role within the core of healthcare delivery.

In developing countries, health literacy levels often correspond to primary school grades 4–5, which places pharmacists at the frontline as advisors. Their support for patients directly contributes to protecting and managing public health. Standards in areas such as patient care, service delivery, drug manufacturing, research and development (R&D), drug licensing, cost control, employee and patient satisfaction, infection control, and management processes highlight the domains where the guidance and expertise of pharmacists are essential.

The advantage of pharmacists being directly accessible to patients is highly significant in our country. The possibility of multiple pharmacists working within community pharmacies, the shortage of academically trained professionals, and the increasing demand in industrial areas such as production, R&D, licensing, marketing, sales, herbal pharmacy, oncology pharmacy, and clinical pharmacy—due to the interdisciplinary 2rofes of pharmacy—have all contributed to the growing demand 2rofess profession. Faculties of Pharmacy in Turkey and the Turkish Republic of Northern Cyprus have thus become attractive academic and 2rofessional fields.

The European University of Lefke, Faculty of Pharmacy, recognizes the increasing need for pharmacists in the next decade and aims to:

- Educate pharmacists with scientific and analytical thinking skills,
- Train individuals capable of following updated scientific 3rofession in English,
- Instill continuous 3rofessional development,
- Develop awareness of societal and 3rofessional health issues and provide contributions to solutions,
- Uphold 3rofessional ethics with fairness and integrity,
- Empower pharmacists to provide consultancy services and take an active role in public health,
- Cultivate creativity, openness to innovation, and the ability to apply technological advancements in science and healthcare to the benefit of the profession.

Learning Outcomes of the Pharmacy Undergraduate Program at the European University of Lefke:
Graduates of the program will be able to:

- Prepare pharmaceutical solutions and perform analyses within the scope of basic pharmaceutical sciences,
- Recognize natural and synthetic pharmaceutical products used in the diagnosis, treatment, and prevention of diseases,
- Calculate dosages and prepare pharmaceutical dosage forms (tablet, capsule, injectable, etc.),
- Learn and develop new drug formulations,
- Understand toxic compounds, drug toxicology, and their analysis,
- Comprehend biochemical mechanisms and the relationship between nutrition, disease, and health,
- Interpret the causes and consequences of metabolic diseases within clinical biochemistry and evaluate laboratory findings,
- Identify medicinal plants and pharmaceutical products, evaluate their advantages and disadvantages, and apply instrumental analyses used in herbal medicine research,
- Apply the principles of rational drug use,
- Analyze drug–drug interactions, pharmacological pathways of applications, and conduct risk assessments,
- Prepare cosmetic products, understand raw material formulations, and production techniques,
- Demonstrate knowledge of human anatomy and physiology, and understand the distribution, absorption, metabolism, and excretion of drugs,
- Apply pharmaceutical deontology,
- Possess the necessary knowledge in first aid,
- Interpret pharmaceutical business management and health law practices.

Curriculum

PHARMACY (M) – ECZACILIK									
1-3-5-7-9 DÖNEM					2-4-6-8-10 DÖNEM				
DERS KODU	DERS ADI	(T-U-L)K	AKTS	DERS TÜRÜ	DERS KODU	DERS ADI	(T-U-L)K	AKTS	DERS TÜRÜ
COMN105	ANATOMY	(3-0-0)3	4	ZORUNLU	**COMN103**	PHYSIOLOGY	(4-0-0)3	4	ZORUNLU
COMN109	MATHEMATICS	(3-0-0)3	5	ZORUNLU	**UHTC02**	TURKISH	(2-0-0)2	2	SEÇMELİ
COMN111	CHEMISTRY	(3-0-0)3	4	ZORUNLU	**UHTC01**	HISTORY	(2-0-0)2	2	SEÇMELİ
COMN121	PHYSICS I	(3-0-0)3	4	ZORUNLU	**UFLE02**	FOREIGN LANGUAGE II	(3-0-0)3	3	SEÇMELİ
UFLE01	FOREIGN LANGUAGE I	(3-0-0)3	3	SEÇMELİ	**PHAR108**	SOCIAL PHARMACY	(2-0-0)2	4	ZORUNLU
PHAR105	INTRODUCTION TO PHARMACY	(2-0-0)2	4	ZORUNLU	**PHAR130**	FIRST AID	(3-0-0)3	5	ZORUNLU
PHAR113	MEDICAL BIOLOGY	(3-0-0)3	6	ZORUNLU	**PHEL01**	TECHNICAL ELECTIVE I	(2-0-0)3	5	SEÇMELİ
					UTEC01	UNIVERSITY ELECTIVE I	(3-0-0)3	5	SEÇMELİ
HSCC301	BIOSTATISTICS	(3-0-0)3	5	ZORUNLU	**COMN114**	BIOCHEMISTRY	(3-0-0)3	3	ZORUNLU
PHEL02	TECHNICAL ELECTIVE II	(3-0-0)3	5	SEÇMELİ	**PHAR218**	PHARMACEUTICAL BOTANY	(2-3-0)3	5	ZORUNLU
PHAR231	ORGANIC CHEMISTRY	(3-0-1)3	5	ZORUNLU	**PHAR230**	PHARMACEUTICAL MICROBIOLOGY	(3-3-0)4	5	ZORUNLU
PHAR233	FOUNDATION IN PHARMACY PRACTICE	(1-3-0)2	2	ZORUNLU	**PHAR232**	PATHOLOGY	(3-0-3)3	4	ZORUNLU
PHAR235	ANALYTICAL CHEMISTRY I	(2-3-0)3	5	ZORUNLU	**PHAR234**	IMMUNOLOGY	(2-2-0)3	4	ZORUNLU
PHAR237	VIROLOGY AND PARASITOLOGY	(3-1-0)3	5	ZORUNLU	**PHAR236**	ANALYTICAL CHEMISTRY II	(2-3-0)3	5	ZORUNLU
PHAR239	PHARMACY REGULATIONS AND ETHICS	(2-0-0)2	3	ZORUNLU	**UFRC01**	UNIVERSITY ELECTIVE I	(3-0-0)3	4	SEÇMELİ
PHAR301	PHARMACOGNOSY I	(2-3-0)3	5	ZORUNLU	**PHAR310**	PHARMACOGNOSY II	(2-3-0)3	5	ZORUNLU
PHAR331	PHARMACEUTICAL TECHNOLOGY I	(3-0-3)4	5	ZORUNLU	**PHAR330**	PHARMACEUTICAL TOXICOLOGY	(2-3-0)3	4	ZORUNLU
PHAR333	PHARMACEUTICAL CHEMISTRY I	(3-3-0)4	5	ZORUNLU	**PHAR332**	PHARMACEUTICAL TECHNOLOGY II	(3-3-0)4	5	ZORUNLU
PHAR335	PHARMACOLOGY I	(3-0-0)3	4	ZORUNLU	**PHAR334**	PHARMACEUTICAL CHEMISTRY II	(3-3-0)4	5	ZORUNLU
PHAR337	CLINICAL BIOCHEMISTRY	(3-0-0)3	6	ZORUNLU	**PHAR336**	PHARMACOLOGY II	(3-0-0)3	4	ZORUNLU
PHAR339	PHARMACEUTICAL BIOTECHNOLOGY AND CELL CULTURE	(3-0-0)3	5	ZORUNLU	**PHAR338**	PHARMACOECONOMICS	(3-0-0)3	3	ZORUNLU
					UFRC02	UNIVERSITY ELECTIVE II	(3-0-0)3	4	SEÇMELİ
PHEL03	TECHNICAL ELECTIVE III	(3-0-0)3	5	SEÇMELİ	**PHAR406**	PHARMACY ADMINISTRATION AND ACCOUNTANCY	(2-0-0)2	3	ZORUNLU
PHAR401	PHARMACOGNOSY III	(2-3-0)3	5	ZORUNLU	**PHAR430**	PHARMACOTHERAPY	(3-0-0)3	4	ZORUNLU
PHAR403	PHARMACEUTICAL TECHNOLOGY III	(2-3-0)3	5	ZORUNLU	**PHEL04**	TECHNICAL ELECTIVE IV	(3-0-0)3	5	SEÇMELİ
PHAR409	CLINICAL PHARMACY	(3-0-0)3	4	ZORUNLU	**PHEL05**	TECHNICAL ELECTIVE V	(3-0-0)3	5	SEÇMELİ
PHAR431	PHARMACEUTICAL CHEMISTRY III	(3-3-0)4	5	ZORUNLU	**PHAR436**	PHYSICAL PHARMACY II	(2-0-0)2	3	ZORUNLU
PHAR433	PHARMACOLOGY III	(3-0-0)3	3	ZORUNLU	**PHAR452**	PHARMACEUTICAL TECHNOLOGY IV	(2-0-3)3	5	ZORUNLU
PHAR435	PHYSICAL PHARMACY I	(2-0-0)2	3	ZORUNLU	**PHEL06**	TECHNICAL ELECTIVE VI	(3-0-0)3	5	SEÇMELİ
UFRC03	UNIVERSITY ELECTIVE III	(3-0-0)3	4	SEÇMELİ	**PHAR532**	THESIS PROJECT II	(0-6-0)3	6	ZORUNLU
UFRC04	UNIVERSITY ELECTIVE IV	(3-0-0)3	4	SEÇMELİ	**PHAR534**	PHARMACY TRAINING	(0-30-0)12	24	ZORUNLU
PHAR531	THESIS PROJECT I	(0-4-0)2	2	ZORUNLU					
PHEL07	TECHNICAL ELECTIVE VII	(3-0-0)3	5	SEÇMELİ					
PHEL08	TECHNICAL ELECTIVE VIII	(3-0-0)3	5	SEÇMELİ					
PHEL09	TECHNICAL ELECTIVE IX	(3-0-0)3	5	SEÇMELİ					
PHEL10	TECHNICAL ELECTIVE X	(3-0-0)3	5	SEÇMELİ					

PHARMACY (Pharm.D.) – FIRST 8 SEMESTERS ARE AS SAME AS Pharm.M. – ECZACILIK									
1-3-5-7-9-11 DÖNEM					2-4-6-8-10-12 DÖNEM				
DERS KODU	DERS ADI	(T-U-L)K	AKTS	DERS TÜRÜ	DERS KODU	DERS ADI	(T-U-L)K	AKTS	DERS TÜRÜ
COMN105	ANATOMY	(3-0-0)3	4	ZORUNLU	**COMN103**	PHYSIOLOGY	(4-0-0)3	4	ZORUNLU
COMN109	MATHEMATICS	(3-0-0)3	5	ZORUNLU	**UHTC02**	TURKISH	(2-0-0)2	2	SEÇMELİ
COMN111	CHEMISTRY	(3-0-0)3	4	ZORUNLU	**UHTC01**	HISTORY	(2-0-0)2	2	SEÇMELİ
COMN121	PHYSICS I	(3-0-0)3	4	ZORUNLU	**UFLE02**	FOREIGN LANGUAGE II	(3-0-0)3	3	SEÇMELİ
UFLE01	FOREIGN LANGUAGE I	(3-0-0)3	3	SEÇMELİ	**PHAR108**	SOCIAL PHARMACY	(2-0-0)2	4	ZORUNLU
PHAR105	INTRODUCTION TO PHARMACY	(2-0-0)2	4	ZORUNLU	**PHAR130**	FIRST AID	(3-0-0)3	5	ZORUNLU
PHAR113	MEDICAL BIOLOGY	(3-0-0)3	6	ZORUNLU	**PHEL01**	TECHNICAL ELECTIVE I	(2-0-0)3	5	SEÇMELİ
					UTEC01	UNIVERSITY ELECTIVE I	(3-0-0)3	5	SEÇMELİ
HSCC301	BIOSTATISTICS	(3-0-0)3	5	ZORUNLU	**COMN114**	BIOCHEMISTRY	(3-0-0)3	3	ZORUNLU
PHEL02	TECHNICAL ELECTIVE II	(3-0-0)3	5	SEÇMELİ	**PHAR218**	PHARMACEUTICAL BOTANY	(2-3-0)3	5	ZORUNLU
PHAR231	ORGANIC CHEMISTRY	(3-0-1)3	5	ZORUNLU	**PHAR230**	PHARMACEUTICAL MICROBIOLOGY	(3-3-0)4	5	ZORUNLU
PHAR233	FOUNDATION IN PHARMACY PRACTICE	(1-3-0)2	2	ZORUNLU	**PHAR232**	PATHOLOGY	(3-0-3)3	4	ZORUNLU
PHAR235	ANALYTICAL CHEMISTRY I	(2-3-0)3	5	ZORUNLU	**PHAR234**	IMMUNOLOGY	(2-2-0)3	4	ZORUNLU
PHAR237	VIROLOGY AND PARASITOLOGY	(3-1-0)3	5	ZORUNLU	**PHAR236**	ANALYTICAL CHEMISTRY II	(2-3-0)3	5	ZORUNLU
PHAR239	PHARMACY REGULATIONS AND ETHICS	(2-0-0)2	3	ZORUNLU	**UFRC01**	UNIVERSITY ELECTIVE I	(3-0-0)3	4	SEÇMELİ
PHAR301	PHARMACOGNOSY I	(2-3-0)3	5	ZORUNLU	**PHAR310**	PHARMACOGNOSY II	(2-3-0)3	5	ZORUNLU
PHAR331	PHARMACEUTICAL TECHNOLOGY I	(3-0-3)4	5	ZORUNLU	**PHAR330**	PHARMACEUTICAL TOXICOLOGY	(2-3-0)3	4	ZORUNLU
PHAR333	PHARMACEUTICAL CHEMISTRY I	(3-3-0)4	5	ZORUNLU	**PHAR332**	PHARMACEUTICAL TECHNOLOGY II	(3-3-0)4	5	ZORUNLU
PHAR335	PHARMACOLOGY I	(3-0-0)3	4	ZORUNLU	**PHAR334**	PHARMACEUTICAL CHEMISTRY II	(3-3-0)4	5	ZORUNLU
PHAR337	CLINICAL BIOCHEMISTRY	(3-0-0)3	6	ZORUNLU	**PHAR336**	PHARMACOLOGY II	(3-0-0)3	4	ZORUNLU
PHAR339	PHARMACEUTICAL BIOTECHNOLOGY AND CELL CULTURE	(3-0-0)3	5	ZORUNLU	**PHAR338**	PHARMACOECONOMICS	(3-0-0)3	3	ZORUNLU
					UFRC02	UNIVERSITY ELECTIVE II	(3-0-0)3	4	SEÇMELİ
PHEL03	TECHNICAL ELECTIVE III	(3-0-0)3	5	SEÇMELİ	**PHAR406**	PHARMACY ADMINISTRATION AND ACCOUNTANCY	(2-0-0)2	3	ZORUNLU
PHAR401	PHARMACOGNOSY III	(2-3-0)3	5	ZORUNLU	**PHAR430**	PHARMACOTHERAPY	(3-0-0)3	4	ZORUNLU
PHAR403	PHARMACEUTICAL TECHNOLOGY III	(2-3-0)3	5	ZORUNLU	**PHEL04**	TECHNICAL ELECTIVE IV	(3-0-0)3	5	SEÇMELİ
PHAR409	CLINICAL PHARMACY	(3-0-0)3	4	ZORUNLU	**PHEL05**	TECHNICAL ELECTIVE V	(3-0-0)3	5	SEÇMELİ
PHAR431	PHARMACEUTICAL CHEMISTRY III	(3-3-0)4	5	ZORUNLU	**PHAR436**	PHYSICAL PHARMACY II	(2-0-0)2	3	ZORUNLU
PHAR433	PHARMACOLOGY III	(3-0-0)3	3	ZORUNLU	**PHAR452**	PHARMACEUTICAL TECHNOLOGY IV	(2-0-3)3	5	ZORUNLU
PHAR435	PHYSICAL PHARMACY I	(2-0-0)2	3	ZORUNLU	**PHEL06**	TECHNICAL ELECTIVE VI	(3-0-0)3	5	SEÇMELİ
UFRC03	UNIVERSITY ELECTIVE III	(3-0-0)3	4	SEÇMELİ	**UFRC05**	UNIVERSITY ELECTIVE V	(3-0-0)3	4	SEÇMELİ
UFRC04	UNIVERSITY ELECTIVE IV	(3-0-0)3	4	SEÇMELİ	**PHAR502**	INTOXICATION CONTROL	(3-0-0)3	5	ZORUNLU
PHAR531	THESIS PROJECT I	(0-4-0)2	2	ZORUNLU	**PHAR504**	BIOLOGICAL PRODUCTS	(3-0-0)3	5	ZORUNLU
PHEL07	TECHNICAL ELECTIVE VII	(3-0-0)3	5	SEÇMELİ	**PHAR506**	INSTRUMENTAL ANALYTICAL METHODS	(3-0-0)3	5	ZORUNLU
PHEL08	TECHNICAL ELECTIVE VIII	(3-0-0)3	5	SEÇMELİ	**PHAR532**	THESIS PROJECT II	(0-6-0)3	6	ZORUNLU
PHEL09	TECHNICAL ELECTIVE IX	(3-0-0)3	5	SEÇMELİ	**PHEL11**	TECHNICAL ELECTIVE XI	(3-0-0)3	5	SEÇMELİ
PHEL10	TECHNICAL ELECTIVE X	(3-0-0)3	5	SEÇMELİ					
PHAR601	INDUSTRIAL PHARMACY PRACTICE	(0-10-0)4	8	ZORUNLU	**PHAR602**	INDUSTRIAL PHARMACY CLERKSHIP	(0-12-0)5	10	ZORUNLU
PHAR603	HOSPITAL PHARMACY PRACTICE	(0-10-0)4	8	ZORUNLU	**PHAR604**	HOSPITAL PHARMACY CLERKSHIP	(0-12-0)5	10	ZORUNLU
PHAR605	COMMUNITY PHARMACY PRACTICE	(0-10-0)4	8	ZORUNLU	**PHAR606**	COMMUNITY PHARMACY CLERKSHIP	(0-12-0)5	10	ZORUNLU
PHAR631	THESIS PROJECT III	(0-6-0)3	6	ZORUNLU					

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EUROPEAN UNIVERSITY OF LEFKE

Faculty of Health Sciences

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN105	Anatomy	Compulsory	3	0	0			Tuesday 18:00-20:50 ECZ001
Prerequisite		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Musa Muhtaroğlu	Office Hours Schedule	Wednesday 14:00-16:00 Tuesday 14:00-16:00
E-mail	mmuhtaroglu@eul.edu.tr		
Phone	6602000	Office / Room No	CL-104
Teaching Assistant		Phone	6602000
E-mail		Office / Room No	2728

Catalogue Descriptions	This course provides a comprehensive introduction to human anatomy, focusing on the structural organization of the human body and its major systems. The course includes anatomical terminology, anatomical position, planes, movements, and the levels of structural organization. Detailed coverage is given to the skeletal, muscular, nervous, cardiovascular, respiratory, digestive, urinary, and reproductive systems, emphasizing the location, structure, and basic functional relationships of organs. Clinical correlations, surface anatomy, and basic anatomical applications are integrated throughout the course. By the end of the course, students are expected to develop a solid anatomical foundation essential for further education in health sciences and clinical disciplines.
Objectives	To provide students with basic and systematic knowledge of human anatomy, including anatomical terminology, body organization, and major organ systems, to support their education in health sciences.
Learning Outcomes	Upon successful completion of the course, students will be able to: (1) use basic anatomical terminology correctly and consistently; (2) identify the anatomical position, planes, and movements of the human body; (3) describe the structural organization of the human body from cells to organ systems; (4) identify the major bones, muscles, organs, and systems and explain their basic anatomical relationships; (5) relate anatomical structures to basic clinical and functional contexts.

Programme Outcome Relations			
	PO1: 5 **PO2: 4** **PO3: 3** **PO4: 4** **PO5: 2** **PO6a: 1** **PO6b: 1**	**PO7: 3** **PO8: 3** **PO9: 1** **PO10a: 1** **PO10b: 1** **PO11: 3**	**(1) Strongly disagree;** **(2) Disagree;** **(3) Neither agree nor disagree;** **(4) Agree;** **(5) Strongly agree.**

Textbooks and/or References		
	1	Drake, R. L., Vogl, A. W., Mitchell, A. W. M., Gray's Anatomy for Students, 5th ed., Elsevier, 2023.
	2	Standring, S., Gray's Anatomy: The Anatomical Basis of Clinical Practice, 42nd ed., Elsevier, 2020.
	3	Netter, F. H., Netter Atlas of Human Anatomy: Classic Regional Approach, 8th ed., Elsevier, 2022.

WEEK	Date	TOPICS	Reference No - Section
Week 1	9/23/2025	Introduction to Anatomy: definition, branches of anatomy, anatomical terminology	1: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6
Week 2	9/30/2025	Anatomical position, anatomical planes, axes, movements, and body cavities	1: 2.1, 2.2, 2.3, 2.4
Week 3	10/7/2025	Skeletal system I: bone tissue, classification of bones, general osteology	1: 3.1, 3.2, 3.3
Week 4	10/14/2025	Skeletal system II: axial and appendicular skeleton	1: 4.1, 4.2
Week 5	10/21/2025	Joints and muscular system: joint types, muscle tissue, basic muscle anatomy	2: 1.1, 1.2
Week 6	10/28/2025	Nervous system I: organization of the nervous system, neurons and neuroglia	2: 2.1, 2.2, 2.3
Week 7	11/4/2025	Nervous system II: central and peripheral nervous system	2: 3.1, 3.2
Week 8	11/11/2025	**Midterms**	
Week 9	11/18/2025	Cardiovascular system: heart anatomy and major blood vessels	3: 1.1, 1.2
Week 10	11/25/2025	Respiratory system: lungs, airways, and thoracic anatomy	3: 2.1, 2.2
Week 11	12/2/2025	Digestive system: gastrointestinal tract and accessory organs	3: 3.1
Week 12	12/9/2025	Urinary system and reproductive system anatomy	1: 4.5, 4.6, 4.7
Week 13	12/16/2025	Endocrine system and lymphatic system	1: 5.1
Week 14	12/23/2025	**Finals**	1: 6.1, 6.2, 6.3
Week 15	12/30/2026	**Finals**	
Week 15-16	03-11/01/26	**Finals**	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1	12/23/2025	60	
	Semester Evaluation			100	
	Midterm(s)	1	11/6/2025	40	40.0
	Quiz(zes)				
	Project(s)				
	Homework				
	Laboratory works				
	Attendance				

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	42	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1	10	FE preparation self study	1	10
				TOTAL :	106
				Recommended ECTS Credit (Total Hours / 30) :	3.53

EUROPEAN UNIVERSITY OF LEFKE- "Common Courses"

"Common Courses"

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
MATH101	Calculus	Theory and Practice	4	0	0	4	7	
Prerequisite		Prerequisite to						

Course Lecturer	Prof. Dr. Yönal Kırsal	Office Hours Schedule	
E-mail	ykirsal@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail		Office / Room No	

Course Objectives	This module introduces the fundamental ideas of differential calculus and its use in modelling and solving problems in science, engineering, and computing. Students develop fluency with functions, limits, continuity, and derivatives, and learn to apply derivatives to analyse change, optimise systems, and interpret real-world behaviour.
Learning Outcomes	On successful completion of the course, the student should: (1) learn cartesian coordinates system, understand function evaluation, graph functions, recallcomposite functions, odd-even functions, domain-range concept of the functions, and trigonometric functions; (2) understand conceptual and visual representation of limits, continuity, differentiability, and tangent line approximations for functions at a point; (3) apply the power rule, product rule, quotient rule and the chain rule to functions explicitly and implicitly for finding derivatives; (4) apply Fundamental Theorem of calculus to evaluate definite integrals, and calculate the area between the curves; (5) perform accurately substitution method, improper integrals, integration by parts, and inverse substitution.
Text Books	1 2

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction to the Lecture	
Week 2		One-Sided Limits, Rules for Calculating Limits	
Week 3		The Squeeze Theorem, Limits at Infinity	
Week 4		Limits at Infinity for Rational Functions	
Week 5		Infinite Limits, Continuity at a Point and Continuity on an Interval	
Week 6		Tangent lines and their slopes	
Week 7		The Definition of the Derivative, Sums and constant multiples, the product rule, the quotient rule	
Week 8	08-16/11/2025	**MIDTERM EXAM WEEK**	
Week 9		The chain rule, Derivatives of trigonometric functions	
Week 10		Higher-order derivatives, Implicit differentiation	
Week 11		**MIDTERM EXAM-2**	
Week 12		L'Hospital's Rule, Extreme Values	
Week 13		Antiderivatives, The Indefinite Integral, The Definite Integral	
Week 14		The method of substitution	
Week 15		Trigonometric Integration	
Week 16	03-11/01/2026	**FINAL EXAM WEEK**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	03-11/01/2026	40	40
Semester Evaluation				
Midterm(s)	1	08-16/11/2025	30	30.0
Quiz(zes)	1		30	30.0
Project(s)				
Homework(s)				
Participation				
Presentations				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	56.0	Applied Hours	1	15.0
Midterm	1	1.0	Final	1	2.0
Midterm Study	1	10.0	Final Study	1	10.0
Quiz	1	10.0	Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other	1	50.0	Self Study	14	56.0
			TOTAL :		210.0

Recommended ECTS Credit (Total Hours / 30) :	7

EUROPEAN UNIVERSITY OF LEFKE- "Common Courses"

"Common Courses"

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN111	Chemistry	Theory and Practice	3	0	0	3	4	
Prerequisite		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Devrim ÖZDAL	Office Hours Schedule	
E-mail	devrimozdal@eul.edu.tr		
Phone	2516	Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail		Office / Room No	

Course Objectives	The aim of this course is to describe students how substances interact with one another. Students will be informed on how the atom is made up, how atoms come together to make molecules and how molecules can interact, chemical compounds, chemical bonds, chemical equations and reactions, aqueous solutions, periodic table, gases, the electronic structure of the atom.
Learning Outcomes	At the end of this course the student: 1. understand and carryout calculations on properties of Substances 2. learn atomic structure and naming of compuounds 3. learn mole concept, balancing equations, stoichiometry 4. carry out calculations on aqueous reactions 5. learn ideal gasses, gas mixtures and gas properties 6. understand electronic configurations and covalent bonding 7. understand concentration units of solutions, principles of solubility and colligative properties of nonelectrolytes
Text Books	1
	2

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction - Overview of the subjects	
Week 2		Matter and Measurements; Classifications of matters and Units in measurements	
Week 3		Properties of substances and Density	
Week 4		Atoms, Molecules and Ions; Atom theories and Subatomic particles	
Week 5		Properties of Periodic table and Structural formulas, Naming of Ionic and Covalent Compounds	
Week 6		Mass Relations in Chemistry; Writing and Balancing Chemical equations	
Week 7		Limiting Reactant, Theoretical and Experimental Yield, Percent Yield	
Week 8	08-16/11/2025	MIDTERM EXAM WEEK	
Week 9		Reactions in Aqueous Solutions	
Week 10		Gases; Measurements of gases, Ideal gas law, Gas mixtures	
Week 11		Electronic Structure and Periodic Table-I	
Week 12		Electronic Structure and Periodic Table-II	
Week 13		Solutions; Concentration Units	
Week 14		Properties of Solubility	
Week 15		A General Review	
Week 16	03-11/01/2026	FINAL EXAM WEEK	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	03-11/01/2026	50	50
Semester Evaluation				
Midterm(s)	1	08-16/11/2025	50	50.0
Quiz(zes)				
Project(s)				
Homework(s)				
Participation				
Presentations				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	42.0	Applied Hours		
Midterm	1	1.0	Final	1	2.0
Midterm Study	1	10.0	Final Study	1	10.0
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other	1	30.0	Self Study	14	25.0

TOTAL :		120.0
Recommended ECTS Credit (Total Hours / 30) :		4

EUROPEAN UNIVERSITY OF LEFKE

Faculty of Engineering

SYLLABUS

2025-2026 FALL

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN121	PHYSICS I	Compulsory	3	0	0	3	4	
Prerequisite		Prerequisite to						

Course Lecturer	Mehmet Burhan	Office Hours Schedule	Monday: 09:00-12:00
E-mail	mburhan@eul.edu.tr		
Phone	3502	Office / Room No	AS308
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This course aims to introduce fundamental concepts of physics for engineering science and to provide essential background for students. The course provides deep understanding of thermodynamics, electricity and magnetism. Also, the course aims to show the students the applications of the course material.
Objectives	The main aim of this course is to introduce the fundamental concepts of thermodynamics, electricity and magnetism necessary for science and to provide essential background for students.
Learning Outcomes	On successful completion of this course, all students will have developed knowledge and understanding of: (1) an ability to translate, interpret and extrapolate important scientific models and laws governing classical mechanics, (2) an ability to demonstrate critical thinking and problem solving skills in the area of physics, (3) an ability to perform mathematical modeling of basic problems and establish their analytic solutions in field of classical mechanics, (4) an understanding of the connection of course material to applications.

Textbooks and/or References		
	1	Serway, Physics for Scientists and Engineers with Modern Physics, 9/e
	2	Halliday and Resnick, Fundamentals of Physics
	3	Sears and Freedman, University Physics, 10/e
	4	Gettys, Keller and Skove, Physics: Classical and Modern

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction	
Week 2		Kinematics In One Dimension: Distance, displacement, average velocity, average acceleration, instan. Velocity and acceleration	1:19.1,19.2,19.3,19.4,19.5
Week 3		Kinematics in One Dimension with constant acceleration: , motion on x-axis and Properties of motion on y-axis	1:20.1,20.2,20.3,20.4,20.5,20.6,20.7
Week 4		Vectors: Unit Vector Representation and Matematical Operations with Vectors	1:21.1,21.2,21.3,21.4,21.5
Week 5		Kinematics in Two Dimension: Properties of Projectile Motion	1:22.1,22.2,22.3,22.4,22.6,22.7
Week 6		Laws of Motion: First, Second and Third Law of Newton	1:23.1,23.2,23.3,23.4,23.5,23.6
Week 7		Applications of Newton's Laws	1:24.1, 24.2,24.3, 24.4
Week 8		**MIDTERM(S)**	1:25.1,25.2,25.3,25.4
Week 9		Dynamics of Circular Motion	
Week 10		Work and Energy	1:29.1,29.2,29.3,29.4,29.5
Week 11		Definition of Mechanical Energy, Potential Energy, Kinetic Energy and Conservation of Mechanical Energy	1:30.1,30.2,30.3
Week 12		Heat and Temperature	1:30.5,30.6
Week 13		Kinetic Theory	1:31.1,31.2,31.3,31.4, 31.4,31.5
Week 14		Review	
Week-15/16		**FINALS**	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		50	50.0
	Semester Evaluation				
	Midterm(s)			30	
	Quiz(zes)				
	Project(s)				
	Homework(s)			20	
	Laboratory work(s)				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	13	39	Homework		
TLH self study	13	50	Project		
Quiz (Q)	1	0.5	Presentation		
Q preparation self study	1	4	Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	2	Final exam (FE)	1	1.5
ME preparation self study	1	10	FE preparation self study	1	12
				TOTAL :	119
				Recommended ECTS Credit (Total Hours / 30) :	3.97

EUROPEAN UNIVERSITY OF LEFKE

SYLLABUS
2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN191	English 1		3	0	0	3	3	
Prerequisite		Prerequisite to						

Course Lecturer	Mehmet Mert	Office Hours Schedule	Monday 09:00-11:00
E-mail	mmert@eul.edu.tr		
Phone		Office / Room No	AS232
Teaching Assistant(s)	-	Phone	2684
E-mail	-	Office / Room No	-

Course Objectives	This course introduces the main grammatical structures to the students and helps them to develop their listening, speaking , reading and writing skills as well as vocabulary and pronunciation. The students are provided with clear rules and example sentences. The lessons contain high frequency vocabulary that the students are likely to come across during their studies and future their future careers
Learning Outcomes	1.The students will be able to understand and use English structures accurately to express themselves. 2. The students will be able to learn and use the vocabulary learnt during the lessons.
Textbooks and/or	1 English File, Intermediate Plus, Student's Book, Christina Latham- Koenig, et al, Oxford University Press, Third Edition 2 English File, Pre-Intermediate Plus, Workbook, Christina Latham- Koenig, et al, Oxford University Press, Third Edition

WEEK	Date	TOPICS	Reference no to learning outcomes
Week 1		Pronouns	1.2
Week 2		Making adjectives	1.2
Week 3		Adjectives	1.2
Week 4		Adjective Suffixes	1.2
Week 5		Modals of deduction	1.2
Week 6		Holidays	1.2
Week 7		Possessives, shops, services	1.2
Week 8		Past Simple / Continuous, used to, stages of life	1.2
Week 9		**MID TERMS**	
Week 10		Passives	1.2
Week 11		kinds of films	1.2
Week 12		future forms, rubbish and recycling	1.2
Week 13		1st-2nd conditionals, applying for a job-course	1.2
Week 14		Present Perfect Simple, TV (phrasal verbs)	1.2
Week 15		Present Perfect Continuous, Types of TV prog.	1.2
Week 16		**FINALS**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		60	100
Semester Evaluation				
Midterm(s)	1		40	100.0
Quiz(zes)				
Project(s)				
Online Homework(s)				
Laboratory				
Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	
Theoretical Hours	13	13x3	39
Midterm	1	1x1	1
Self Study for midterm	1	39x1	39
Final Exam	1	1x1	1
Self Study for final	1	10x1	10
		TOTAL :	90
		Recommended ECTS Credit (Total Hours / 25) :	90/30=3

EUROPEAN UNIVERSITY OF LEFKE

Faculty of Pharmacy

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR105	Introduction to Pharmacy	Compulsory	2	0	0	2	4	Wednesday 12:00-13:50 Pharmacy Practice Lab
Prerequisite		Prerequisite to						

Course Lecturer	Prof. Dr. Şermin Tetik	Office Hours Schedule	Monday 14:00-16:00 Tuesday 14:00-16:00
E-mail	stetik@eul.edu.tr		
Phone	2592	Office / Room No	Dean office
Teaching Assistant		Phone	
E-mail	stetik@eul.edu.tr	Office / Room No	

Catalogue Descriptions	This course includes definitions of pharmacy and pharmacists and their functions in health profession team, history of Pharmacy and an introduction to drug and pharmacy. It also includes the basic concepts about Pharmacy as profession (Hospital, Industry). The role and relationship of the pharmacist in the health care system. Reviewing and dispensing prescriptions and medication order. Labelling of dispensed medications. Pharmacopoeias and Formularies. Working and carrier area of pharmacists e.g Community Pharmacy, Hospital Pharmacy, Clinical Pharmacy, Industrial Pharmacy. It also introduces the Organizations related to pharmacy internationally and in the Turkish Republic of North Cyprus. Important pharmaceutical terms commonly used in pharmacy, pharmaceutical sciences, medicine, medical areas and pharmaceutical literature by word structure construction. Identification of functions and conditions associated with prefixes, suffixes, root words in a systems based approach. Singular and plural forms of the medical and pharmaceutical terms are also widely described and practiced.
Objectives	To provide students with foundational knowledge in terminology of pharmacy, researching health science, connecting with patients and health workers, and managing pharmaceutical and literal concept, with emphasis on relational and entity-relationship models and the use for ratinal drug using.
Learning Outcomes	More specifically, on successful completion of this course the students will 1. Have a knowledge of basic concepts and terms related to Pharmacy and medicine.s 2.Lean the history of pharmacy and evolution of medicine. 3. Learn about the process of new drug approval. 4. to have a general idea about the different dosage forms and routs of adminstration s. 5.To be able to learn and understand the pharmaceutical ethics. 6. To be able to know different medical terminologies in Latin and Greek.

Programme Outcome Relations			
	PO1: 5 **PO2: 4** **PO3: 4** **PO4: 5** **PO5: 1** **PO6a: 1** **PO6b: 1**	**PO7: 3** **PO8: 3** **PO9: 1** **PO10a: 1** **PO10b: 1** **PO11: 3**	**(1) Strongly disagree;** **(2) Disagree;** **(3) Neither agree nor disagree;** **(4) Agree;** **(5) Strongly agree.**

Textbooks and/or References		
	1	Remington An Introduction to Pharmacy by Loyd V Allen Jr, 2012, Published by Pharmaceutical Press, USA,ISBN 978 0 85711 104 3
	2	
	3	

WEEK	Date	TOPICS	Reference No - Section
Week 1	9/24/2025	**An Introduction to Pharmacy**	
Week 2	10/1/2025	**Evolution of Pharmacy**	
Week 3	10/8/2025	**The new drug approval process and clinical trial design**	
Week 4	10/15/2025	**Information resources in pharmacy and the pharmaceutical sciences**	
Week 5	10/22/2025	**Pharmaceutical terminology**	
Week 6	10/29/2025	Holiday	
Week 7	11/5/2025	**Most common general abbreviations used in Pharmacy.**	
Week 8	08-16/11/25	**Midterms**	
Week 9	11/19/2025	**Routes of common Adminstration**	
Week 10	11/26/2025	**Pharmaceutical dosage forms**	
Week 11	12/3/2025	**Professional communications**	
Week 12	12/10/2025	**Fundamentals of pharmacy practice**	
Week 13	12/17/2025	**Patient care**	
Week 14	12/24/2025	**Pharmacy administration (EXTERNAL)**	1: 6.8
Week 15	29-31/12-25	Presentations	
Week 15-16	03-11/01/26	**Finals**	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1	03-11/01/26	50	
	Semester Evaluation				
	Midterm(s)	1	08-16/11/25	50	
	Quiz(zes)				
	Project(s)				
	Homework				
	Laboratory works				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	28	Homework		
TLH self study			Project		
Quiz (Q)			Presentation	1	20
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	18	Final exam (FE)	1	18
ME preparation self study	1	18	FE preparation self study	1	18
				TOTAL :	120
				Recommended ECTS Credit (Total Hours / 30) :	4.00

EUROPEAN UNIVERSITY OF LEFKE

SYLLABUS
2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COM113-PHAR113	Biology-Medical Biology	Major	3	0	3	3	5	Monday: 12:00-12:50/13:00-13:50/14:00-14:50 p.m.- Class-ECZ008
Prerequisite		Prerequisite to						

Course Lecturer	Prof.Dr.Serpil ÜNYAYAR	Office Hours Schedule	Friday:16:00-17:00
E-mail	sunyayar@eul.edu.tr		
Phone		Office / Room No	Faculty of Health Science-Dean office
Teaching Assistant(s)	-	Phone	2552
E-mail	-	Office / Room No	

Course Description	The purpose of this course is to introduce the concepts of biology and their connections to our lives that is more important than ever.
Course Objectives	The purpose of this course is to introduce the concepts of biology and their connections to our lives that is more important than ever.
Course Learning Style	Moodle and Teams, White board, Digital projector
Learning Outcomes	By the end of this course, students will be able to: 1- Describe the basic structure and function of cells, tissues, and organ systems in the human body, 2- Explain the molecular basis of life, including the structure and function of biomolecules such as DNA, RNA, and proteins, 3- Understand the principles of genetics and how genetic variations influence health and disease, 4- Identify the mechanisms of cell division, growth, and differentiation in normal and pathological conditions,
Program Outcome Relations	PO1:3, PO2:3, PO3:3, PO4:4, PO5:4, PO5: 4, PO6:3, PO7: 3, Contribution level Scale: 1- very Low, 2- Low, 3- Moderate, 4- High, 5- Very High

Textbooks and/or References	
1)	Campbell Biology-Seventh Edition
2)	The Cell- Seventh Edition
3)	

WEEK	Date	TOPICS	Reference No - Section
Week 1	9/22/2025	Exploring of life, Chemical bases of life	1,2,3,4
Week 2	9/29/2025	Biomolecules	1,2,5
Week 3	10/6/2025	Cell structures	1,2,5
Week 4	10/13/2025	Cell membrane	1,2,5
Week 5	10/20/2025	Respiration	1,2,5
Week 6	10/27/2025	Genetic material (DNA) and Chromosomes	1,2,3,4,5
Week 7	11/3/2025	Nucleic acids	1,2,3,4,5
Week 8	11/10/2025	Midterm(s)	
Week 9	11/17/2025	Genetic code	1,2,3,4,5
Week 10	11/24/2025	Protein synthesis	Ref.No1-Unit 2
Week 11	12/1/2025	Cell cycle and cell division	Ref.No1-Unit 2
Week 12	12/8/2025	Mendel and gene idea	Ref.No1-Unit 2, Ref.No2
Week 13	12/15/2025	Mutation	Ref.No1-Unit 2, Ref.No:2
Week 14	12/22/2025	Gene cloning and Medical biotechnology	Ref.No1-Unit 2, Ref.No:2
END OF SEMESTER EXAM WEEK			

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	60
	Semester Evaluation				
	Midterm(s)	1		30	30.0
	Quiz(zes)	1		10	10.0
	Project(s)				
	Homework(s)				
	Laboratory				
	Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	42.0	Applied Hours		
Midterm	1	15.0	Final	1	18.0
Quiz	1	5.0	Project		
Laboratory			Homework		

Atelier				Seminar		
Field Study				Presentation		
Other	14	70.0		Self Study		
				TOTAL :	31	150/30=5
				Recommended ECTS Credit (Total Hours / 30) :		5

EUROPEAN UNIVERSITY OF LEFKE

Department of Health Management

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
HSCC301	Biostatistics	Compulsory	3	0	0	3	5	Monday 09:00-11:50
Prerequisite		Prerequisite to						

Course Lecturer	Asst. Prof. Besim ÖZYEL	Office Hours Schedule	
E-mail	bozyel@eul.edu.tr		
Phone	2581	Office / Room No	AS101
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions

This course provides a competency-based introduction to biostatistical principles and their application in the health sciences. Students develop foundational knowledge of statistical concepts and gain practical skills in data organization, analysis, and interpretation. Emphasis is placed on selecting appropriate statistical methods for health-related research questions, applying statistical reasoning in study design, and evaluating the validity of research findings. Through hands-on activities and the use of statistical software, students build analytical competencies required for evidence-based practice and lifelong learning in academic, clinical, and public health environments.

Objectives

By the end of this course, students will be able to:
1. Explain fundamental concepts of biostatistics and describe their relevance to health sciences research.
2. Summarize, organize, and present data using appropriate descriptive statistical methods.
3. Apply inferential statistical techniques to analyze health-related data and draw evidence-based conclusions.
4. Select appropriate statistical methods for various types of research questions commonly encountered in health sciences.
5. Incorporate statistical principles into study design, including sampling strategies, variable selection, and hypothesis formulation.
6. Use statistical software or tools to perform basic data analysis and interpret outputs accurately.
7. Critically evaluate statistical results reported in scientific literature within the health sciences.
8. Communicate statistical findings effectively in written and oral formats suitable for academic and clinical settings.

Learning Outcomes

Upon successful completion of the course, students will be able to:
1. Define and explain core biostatistical concepts and justify their importance in understanding and conducting health sciences research.
2. Organize, summarize, and visually present health-related datasets using appropriate descriptive statistical techniques.
3. Apply inferential statistical methods—such as hypothesis testing, confidence intervals, and correlation/regression—to analyze health sciences data and draw evidence-based conclusions.
4. Identify and select suitable statistical procedures for different types of health research questions, study designs, and variable types.
5. Integrate statistical reasoning into study design by developing sampling strategies, defining variables, and formulating testable hypotheses.
6. Use statistical software (e.g., SPSS, R, or similar tools) to conduct basic data analyses and accurately interpret the resulting outputs.
7. Critically assess the statistical methods, analyses, and conclusions presented in scientific literature within the health sciences.
8. Communicate statistical results clearly and professionally in both written reports and oral presentations tailored to academic or clinical audiences.

Programme Outcome Relations

PO1: 3 PO2: 3 PO3: 3 PO4: 5 PO5: 3 PO6: 3	PO7: 4 PO8: 5 PO9: 3 PO10: 5	(1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

Textbooks and/or References

1. Rosner, B. (2015). Fundamentals of biostatistics.Cengage learning
2. Triola, M. F., Triola, M. M., & Roy, J. (2018). Biostatistics for the biological and health sciences (2nd ed.). Pearson.
3. Daniel, W. W., & Cross, C. L. (2018). Biostatistics: A foundation for analysis in the health sciences (11th ed.). Wiley.
4. Duncan, R. C., Knapp, R. G., & Miller, M. C. (1983). Introductory biostatistics for the health sciences. Duxbury Press.
5. Asst. Prof. Besim Özyel's SPSS Workbook Designed for Health Sciences Students

WEEK	Date	TOPICS	Reference No - Section
Week 1	22/09/2025	Introduction to Biostatistics	
Week 2	29/09/2025	Descriptive Statistics	1,2,3,4,5
Week 3	06/10/2025	Descriptive Statistics	1,2,3,4,5
Week 4	13/10/2025	Hypothesis Testing: One sample Inference	1,2,3,4,5
Week 5	20/10/2025	Hypothesis Testing:Two sample Inference	1,2,3,4,5
Week 6	27/10/2025	Hypothesis Testing:Two sample Inference	1,2,3,4,5
Week 7	03/11/2025	Non-Parametric Methods	1,2,3,4,5
Week 8	10/11/2025	Midterms	
Week 9	17/11/2025	Hypothesis Testing:Categorical Data	1,2,3,4,5
Week 10	24/11/2025	Regression and Correlation	1,2,3,4,5
Week 11	01/12/2025	Multisample Inference	1,2,3,4,5
Week 12	08/12/2025	Desing and Analysis Techniques for Epidemiological Studies	1,2,3,4,5
Week 13	15/12/2025	SPSS Application	5
Week 14	22/12/2025	SPSS Application	5
Week 15	29/12/2025	Revision	
Week 15-16		Finals	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		60	60.0
Semester Evaluation				
Midterm(s)	1		40	40.0
Quiz(zes)				
Project(s)				
Presentation				
Laboratory works				
Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	13	39	Homework		
TLH self study	13	39	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1	25	FE preparation self study	1	30
				TOTAL :	135
				Recommended ECTS Credit (Total Hours / 30) :	4.50

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

"FACULTY OF PHARMACY"

SYLLABUS

2024-2025 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours			Credits	ECTS	Weekly Time Schedule
			T	A	L			
PHAR 231	Organic Chemistry		3	0	5			Monday 12:00-14:50
		Prerequisite to						

Course Lecturer	Assist. Prof. Devrim Özdal	Office Hours Schedule	
E-mail	fabasoglu@eul.edu.tr		
Phone	8047	Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-

Course Objectives	**To provide the student with an understanding most important concepts related to functional groups, reaction mechanisms and isomerism in organic chemistry.The major aim of this course is to introduce students to the foundations of organic chemistry by focusing on the structures, properties and chemical reactivity of the various hybridization states carbon atoms can adopt in alkanes (including cycloalkanes), alkenes and alkynes. This course will also cover different aspects of isomerism observed in organic compounds as well as the reactions' mechanisms (substitution, elimination, and addition) in terms of the electrons flow. Furthermore, the second aim of this course The major aim of this course is to explore organic chemistry and to employ a prior knowledge in more advanced topics such as chemical and physical properties of dienes, aromatics, carbonyl compounds, carboxylic acids**
Learning Outcomes	**Understand bonding and structures of alkanes, alkenes and alkynes;** **● understand and recognize various types of isomerism present in the main three groups of hydrocarbon;** **● recognize different organic reactions (substitution, elimination, and addition) and to show abond breaking/forming using curly arrows representation of the electrons flow;** **● investigate simple spectroscopic data to identify structures of organic molecules. understand bonding and structure of dienes, aromatic and carbonyl compounds, carboxylic acids and their derivatives, and carbohydrates** **● understand reactivity of different chemical systems in terms of their propensity towards electrophiles and nucleophiles**
Textbooks and/or References	Organik Kimya, RALPH J. FESSENDEN & JOAN S. FESSENDEN (1992). Çeviren: Tahsin Uyar. Güneş Kitabevi, Ankara L. G. Wade, Jr. Organic Chemistry. 5th ed. William Reusch, Professor Emeritus (Michigan State U.), Virtual Textbook of Organic Chemistry

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction to Organic Chemistry	
Week 2		Alkanes	
Week 3		Alkenes - Alkynes	
Week 4		Aromatic Compounds	
Week 5		Aromatic Compounds	
Week 6		Isomers - Constitutional Isomers	
Week 7		Isomers - Strereoisomers	
Week 8		Midterm(s)	
Week 9		Alkylhalydes - SN1-SN2 Reactions	
Week 10		E1-E2 Reactions	
Week 11		Phenol	
Week 12		Alcohols - Ethers	
Week 13		Aldehydes - Ketones	
Week 14		Carboxylic Acids - Esters	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		60	
Semester Evaluation				
Midterm(s)	1		30	
Quiz(zes)				
Project(s)				
Homework(s)	1		10	#DIV/0!
Laboratory				
Other (Discussions)				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours		Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours				Applied Hours		
Midterm				Final		
Quiz				Project		
Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		

Other				Self Study		
				TOTAL :		
					Recommended ECTS Credit (Total Hours / 25) :	

EUROPEAN UNIVERSITY OF LEFKE

Computer Engineering - Faculty of Engineering

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR233	Foundation in Pharmacy Practice	Compulsory	1	0	3	2	2	Tusday 10:00-14:00 pharmacy Lab
Prerequisite		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Nusaab SAADA	Office Hours Schedule	Monday 15:00-16:00 Tuesday 10:00-12:00, Friday 14:00-16:00
E-mail	msaada@eul.edu.tr		
Phone		Office / Room No	Pharmacy Faculty
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This course provides an in-depth introduction to the principles and practices of pharmacy, focusing on the professional responsibilities of pharmacists across community, hospital, and industrial settings. Students will gain insight into the ethical and legal frameworks guiding pharmaceutical practice, while developing essential communication and practical skills for patient-centered care.
Objectives	The objective of this course is to equip students with the knowledge, skills, and ethical understanding needed to perform the professional roles of a pharmacist—covering healthcare systems, communication, medicines management, dispensing, pharmacokinetics, and medication safety to ensure effective and responsible patient care.
Learning Outcomes	By the end of this course, students will be able to: Apply ethical and legal principles in the dispensing, supply, and management of medicines. Communicate effectively with patients and healthcare professionals to ensure safe and effective care. Perform accurate pharmaceutical calculations and extemporaneous dispensing techniques. Implement standard operating procedures (SOPs) for medicines management and prescription handling. Identify and minimize medication errors through risk management and pharmacovigilance practices. Explain pharmacokinetic principles and their relevance to drug administration and patient care. Promote patient adherence and optimize therapeutic outcomes through effective counseling and monitoring.

Programme Outcome Relations		
PO1 – Knowledge and Understanding **PO2 – Practical and Professional Skills** **PO3 – Communication and Interpersonal Skills**	**PO4 – Problem Solving and Critical Thinking** **PO5 – Research and Lifelong Learning** **PO6 – Ethics and Professionalism**	

Textbooks and/or References		
	1	Aulton's Pharmaceutics: The Design and Manufacture of Medicines – Michael E. Aulton & Kevin Taylor, 6th Edition, Elsevier.
	2	Remington: The Science and Practice of Pharmacy – David B. Troy & Paul Beringer, 23rd Edition, Pharmaceutical Press.
	3	Pharmaceutical Practice – Jennie Watson & Louise Sterling, 7th Edition, Elsevier.
	4	Introduction to the Pharmaceutical Sciences: An Integrated Approach – Nita K. Pandit, 2nd Edition, Lippincott Williams & Wilkins.
	5	Pharmacy Practice and the Law – Richard R. Abood & Kimberly Burns, 10th Edition, Jones & Bartlett Learning.

WEEK	Date	TOPICS	Reference No - Section
Week 1	22-26/09/25	Introduction to Pharmacy Practice & Professionalism	1: 1.1, 1.2
Week 2	29/09-03/10/25	Healthcare Systems & the Role of the Pharmacist	2: 2.1, 2.2
Week 3	06-10/10/25	Introduction to Medicines Management & SOPs	3: 1.1
Week 4	13-17/10/25	Prescription Handling – Legalities and Interpretation	1: 3.5
Week 5	20-24/10/25	Communication Skills for Pharmacists	4: 2.1
Week 6	27-31/10/25	Extemporaneous Dispensing and Pharmaceutical Calculations	1: 4.9
Week 7	03-07/11/25	Course Review and Revision	
Week 8	08-16/11/25	**Midterms**	
Week 9	17-21/11/25	Compliance, Adherence, and Concordance	5: 3
Week 10	24-28/11/25	Sale and Supply of Medicines: Legal and Ethical Considerations	1: 4.1
Week 11	01-05/12/25	Routes of Drug Administration and Pharmacokinetics	2: 7.2
Week 12	08-12/12/25	Medication Safety, Risk Management, and Pharmacovigilance	5: 3.6
Week 13	15-19/12/25	Practical Review – Dispensing, Communication, and Medication Management	4: 6.6, 6.7
Week 14	22-26/12/25	Final Assessment and Future Directions in Pharmacy Practice	2: 8.6
Week 15	29-31/12-25	Course Review and Revision	
Week 15-16	03-11/01/26	**Finals**	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1	03-11/01/26	50	
	Semester Evaluation			50	
	Midterm(s)	1	08-16/11/25	20	40.0
	Quiz(zes)				
	Project(s)				
	Homework				
	Laboratory works	7		30	60.0
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	42	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)	7	14	Tutorial		
L preparation work	7	40			
Midterm exam (ME)	1	1.5	Final exam (FE)	1	1.5
ME preparation self study	1	8	FE preparation self study	1	15
				TOTAL :	164
				Recommended ECTS Credit (Total Hours / 30) :	5.47

EUROPEAN UNIVERSITY OF LEFKE- "Faculty of Pharmacy"

"Pharmacy"

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR235	Analytical Chemistry I	Compulsory	2		3	3	5	Wednesday @14:00-16:00 Friday @ 09:00-11:50
Prerequisite	-	Prerequisite to				-		

Course Lecturer	Saltuk Pirgalıoğlu	Office Hours Schedule	open door policy is applied you can send a message anytime you want from teams
E-mail	spirgalioglu@eul.edu.tr		
Phone	2515	Office / Room No	AS307
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-

Course Objectives	This course aims to provide the students a background in principles and theories of analytical chemistry. Students will acquire the knowledge on application of basic chemical terms and phenomena in analytical chemistry, will learn basic principles of volumetric and gravimetric methods of analysis.
Learning Outcomes	By the end of this course, students will be able to 1. identify type of errors in analytical chemistry and carry out statistical analysis on measured data and calibration data 2. carry out calculations related with aqueous solutions and chemical equilibrium; solubility equilibrium and precipitation, acid base equilibrium 3. understand basic principles of gravimetric analysis 4. understand basic principles of volumetric analysis; titrations 5. analyze samples with acid/base titrations (applications of neutralization titrations) 6. analyze samples with oxidation/reduction titrations

Textbooks and/or References		
	1	Skoog, D.A., West, D. M., Holler, F. J., Crouch, S. R. (2021) *Fundamentals of Analytcical Chemistry.tenth* edition. USA: Mary Finch.
	2	Stig Pedersen-Bjergaard, Bente Gammelgaard, Trine Grønhaug Halvorsen (2019), Introduction to Pharmaceutical Analytical Chemistry, 2nd edition, Jown Wiley &Sons
	3	
	4	

WEEK	Date	TOPICS	Reference No - Section
Week 1	10/1/2024	Using spread sheet in analytical chemistry	
Week 2	10/8/2024	Caclculations in analytical chemistry	1- ch2
Week 3	10/15/2024	Errors in analytical chemistry and random errors	1- ch3, ch4
Week 4	10/22/2024	Aqueous solutions and chemical equilibria	1- ch 7
Week 5	10/29/2024	Effect of electrolytes on chemical equilibria	1- ch 8
Week 6	11/5/2024	Equilibrium for complex systems	1- ch 9
Week 7	11/12/2024	MIDTERM	
Week 8	11/19/2024		
Week 9	11/26/2024	Gravimetric methods	1- ch 10
Week 10	12/3/2024	Titrations in analytical chemistry	1- ch 11
Week 11	12/10/2024	neutralization titrations	1- ch 12
Week 12	12/17/2024	Complex acid base titrations and applications of neutralization titrations	1- ch 13,14
Week 13	12/24/2024	Complexation and precipitation reactions and titrations	1- ch 15
Week 14	1/7/2025	Oxidation/Reduction reactions and titrations	1- 16A, ch18
Week 15/16	1/10-1/19/2024	Final Examination	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	9.06.2022-22.06.2022	40	
Semester Evaluation				
Midterm(s)	1		30	50.0
Quiz(zes)	0			0.0
Project(s)	0			0.0
Homework(s)	0			0.0
Laboratory	10		30	50.0
Other	0			0.0

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	42.0	Applied Hours		
Midterm	1	2.0	Final	1	3.0
Quiz			Project		
Laboratory	6	18.0	Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study	15	52.0

TOTAL :		117.0
Recommended ECTS Credit (Total Hours / 30) :		4

EUROPEAN UNIVERSITY OF LEFKE- "Faculty of Pharmacy"

"Pharmacy"

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR237	Virology and Parasitology	Theory and Practice	3	0	1	4	7	Thursday 13.00- 15.50 (ECZ006) /Thursday 16.00-16.50 (Lab) (ECZL002)
Prerequisite		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Emrah Güler	Office Hours Schedule	Thursday 09.00- 12.50
E-mail	eguler@eul.edu.tr		
Phone		Office / Room No	ECZ015
Teaching Assistant(s)	-	Phone	-
E-mail		Office / Room No	

Course Objectives	This course is divided into two sections: Virology and Parasitology. In this course, it is aimed to teach the classification of viruses and parasites, introduction to pathogenic species and these microorganisms, virological diseases, parasitological diseases, anti-viral and anti-parasitic drugs. Additionally, diagnosis and prevention methods for viral and parasitic infections will be discussed in this course.
Learning Outcomes	1- Medically important parasites and viruses can be identified. 2-Information will be given about ways to prevent these infections. 3-Relevant experience in diagnosis and laboratory applications will be gained.

Text Books		
	1	Medical Parasitology 5th Edition D.R. Arora and Brij Bala Arora 2018
	2	Clinical and Diagnostic Virology. Goura Kudesia, Sheffield Teaching Hospital NHS Foundation TrustTim Wreghitt, Addenbrooke's Hospital, Cambridge 2009
	3	Lecture slides

WEEK	Date	TOPICS	Reference No - Section
Week 1	25/09/2025	Introduction to Microbiology	1, 2, 3
Week 2	02/10/2025	Introduction to Medical Parasitology	1, 3
Week 3	09/10/2025	Amoeba and *Blastocystis hominis*	1, 3
Week 4	16/10/2025	Falgellates, Ciliates and *Toxoplasma gondii*	1, 3
Week 5	23/10/2025	Malaria: *Plasmodium* spp.	1, 3
Week 6	30/10/2025	Leishmaniasis	1, 3
Week 7	06/11/2025	Intestinal and Blood Nematodes	1, 3
Week 8	08-16/11/2025	Midterm Exam	
Week 9	20/11/2025	Intestinal Cestodes and Intestinal Trematodes	1, 3
Week 10	27/11/2025	Introduction of Virology and Virus/Host Relationship	2, 3
Week 11	04/12/2025	Hepatitis viruses (HAV, HBV, and HCV)	2, 3
Week 12	11/12/2025	Retroviruses (HIV/AIDS) and Rabies virus	2, 3
Week 13	18/12/2025	Adenoviruses and Human Herpesviruses	2, 3
Week 14	25/12/2025	Orthomyxoviruses	2, 3
Week 15	01/01/2026	Holiday	
Week 16	03-11/01/2026	Final Exam	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	03-11/01/2026	50	50
Semester Evaluation				
Midterm(s)	1	08-16/11/2025	40	40
Quiz(zes)				
Project(s)				
Homework(s) (Lab Reports)	1		10	10.0
Participation				
Presentations				

*** *Lifelong Learning Programme (LLP)* *** | **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	4	56.0	Applied Hours		
Midterm	1	2.0	Final	1	2.0
Midterm Study	1	20.0	Final Study	1	20.0
Quiz			Project		
Laboratory	1	10.0	Homework	1	10.0
Atelier			Seminar	1	10.0
Field Study			Presentation		
Other	1	10.0	Self Study	14	70.0
			TOTAL :		210.0
			Recommended ECTS Credit (Total Hours / 30) :		7

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR308	PHARMACY REGULATIONS AND ETHICS		2	0	0	3		Wenesday:12:00-14:00
		Prerequisite to						

Course Lecturer	Assist.prof.Dr.Yazan Awad	Office Hours Schedule	Wednesday: 09:00-12:00, 14:00-17:00 Thursday:9:00-12:00
E-mail	nagiel@eul.edu.tr		
Phone		Office / Room No	2595
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	

Course Objectives	Pharmacy graduates are committed to apply best practices and adhere to high ethical standards in the delivery of pharmacy care. Through this course, students understand what makes up ethical behavior, how to use ethical frameworks as one component of professional judgement and to recognize and respond to situations presenting ethical dilemmas. In this course the students will Distinguishes ethical from other kinds of issues inpharmacy, identifies options open to a pharmacist faced with an ethical issue.
Learning Outcomes	At the conclusion of this course, students should be able to: 1. Define and apply ethical principles to clinical practice issues. 2. Given a written case study or a clinical simulation involving an ethical problem, be able to apply verbally and in writing any of the ethical approaches, theories, or constructs covered in the course. 3. Given a written case study or a clinical simulation involving an ethical problem, explain and justify a course of action. 4. After developing a resolution to an ethical problem, anticipate at least one argument against the resolution and offer suitable rebuttals in writing or verbally. 5. Critically reflect on ethical reasoning, actions and personal development in response to clinical cases or simulations. 6. Discuss the healthcare law and the legal system.
Textbooks and/or References	Pharmacy Ethics and Decision Making Joy Wingfield and David Badcott Pharmaceutical press, 2007, London • Chicago

WEEK	Date	TOPICS	Reference No - Section
Week 1	02.10.24	Introduction	
Week 2	09.10.24	Ethical theory	
Week 3	16.10.24	Key moral concepts in healthcare	
Week 4	23.10.24	Key moral concepts in healthcare	
Week 5	30.11.24	Moral reasoning	
Week 6	06.11.24	Professionalism and accountability	
Week 7	13.11.24	Discussion and Revision	
Week 8	20.11.24	Midterm(s)	
Week 9	27.11..24	The professional decision-making process	
Week 10	04.12.24	Ethics in practice	
Week 11	11.12.24	Research ethics and clinical trials in therapeutic research	
Week 12	18.12.24	Worked examples of decision-making I	
Week 13	25.12.24	Worked examples in research ethics II	
Week14	01.01.25	Hoilday	
Week15	08.01.25	Discussion and Revision	
week 16	15.01.25	Final Exams	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		60	
Semester Evaluation				
Midterm(s)	1		35	
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory				
Other			5	#DIV/0!

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours		Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours				Applied Hours		
Midterm				Final		

Quiz				Project		
Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Other				Self Study		
				TOTAL :		
				Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE

Faculty of Pharmacy

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR105	Pharmacognosy I	Compulsory	2	0	3	3	4	Tuesday 13:00-14:50 room 007
Prerequisite		Prerequisite to						

Course Lecturer	Prof. Dr.Fatih Demirci	Office Hours Schedule	Tuesday 14:00-16:00
E-mail	fdemirci-lau@eul.edu.tr		
Phone		Office / Room No	Part time lecturer office
Teaching Assistant		Phone	
E-mail	demircif@gmail.com	Office / Room No	

Catalogue Descriptions	This course provides knowlege on Materia media, pharmacopoeial and related drugs of biological origin. Pharmacognosy I introduces students to botanical and chemical properties and pharmaceutical as well therapeutical uses of plant originated crude drugs which contain carbohydrates (homogeneous, heterogeneous and algal polysaccharides), simple phenolics, tannins, flavonoids, antraquinones, coumarins, glucosinolates and cyanogenetic glycosides as their active constituents among others.
Objectives	To provide students with fundamental knowledge of materia medica, primary and seconary phytochemical metabolites to be used as auxilary as well as active pharmaceutical ingredients.
Learning Outcomes	identify drug from natural origin and their supply, cultivation, collection, storage along with their special conditions. define drugs from natural origin. identify the cultivation and collection conditions. identify the storage of drugs. apply the methods for the quality control and confirmity of drugs from natural origin. idefine methods for quality control. identify appropriate methods according to the source of the natural product material.interpret natural products such as as carbohydrates, lipids, gums, musilages containg drugs. categorize and define carbohydrates and derivatives. Categorize and define cardioactive glycosides, steroidal saponosides, flavonoids , coumarins,

Programme Outcome Relations			
	PO1: 5 PO2: 4 PO3: 4 PO4: 5 PO5: 1 PO6a: 1 PO6b: 1	PO7: 3 PO8: 3 PO9: 1 PO10a: 1 PO10b: 1 PO11: 3	(1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

Textbooks and/or References		
	1	Heinrich et al. Fundamentals of Pharmacognosy and Phytotherapy, 4th isbn: 9780323834346- 2023, Elsevier
	2	William Charles Evans, Treas and Evans' Pharmacognosy, ISBN: 9780702029332
	3	Shah and Seth, Textbook of Pharmacognosy and Phytochemistry, Elsevier, ISBN: 978-81-312-2298-0

WEEK	Date	TOPICS	Reference No - Section
Week 1	9/23/2025	Introduction	
Week 2	9/30/2025	Introduction to Pharmacognosy	
Week 3	10/7/2025	Biosynthesis, Classification of Carbohydrates	
Week 4	10/14/2025	Carbohydrates	
Week 5	10/21/2025	Glycosides, Anthracene glycosides, Anthraquinones	
Week 6	10/28/2025	Simple Phenolics, Glucosinolates, Cyanogenic Glycosides, Phenylpropanoids, Lignans	
Week 7	11/4/2025	Chromone glycosides - Coumarins	
Week 8	11/11/2025	MIDTERM EXAM	
Week 9	11/18/2025	Flavonoids, Tannins	
Week 10	11/25/2025	Saponins, Steroidal secondary metabolites	
Week 11	12/2/2025	Cardiac glycosides	
Week 12	12/9/2025	Marine Pharmacognosy	
Week 13	12/16/2025	Biotechnology in Pharmacognosy	
Week 14	12/23/2025	Pharmaceutical important secondary metabolites	
Week 15	30.11.1025	Discussion and Revision	
Week 15-16	03-11/01/26	FINAL EXAM	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1	03-11/01/26	50	
	Semester Evaluation				
	Midterm(s)	1	11/11/2025	50	
	Quiz(zes)				
	Project(s)				
	Homework				
	Laboratory works				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	28	Homework		
TLH self study			Project		
Quiz (Q)			Presentation	1	20
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	18	Final exam (FE)	1	18
ME preparation self study	1	18	FE preparation self study	1	18
				TOTAL :	120
				Recommended ECTS Credit (Total Hours / 30) :	4.00

EUROPEAN UNIVERSITY OF LEFKE

Computer Engineering - Faculty of Engineering

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR331	PHARMACEUTICAL TECHNOLOGY I	Compulsory	3	0	3	4	5	Wednesday 9:00-12:00 ECZ 007 - Wednesday 14:00-17:00 Lab
Prerequisite		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Nusaab SAADA	Office Hours Schedule	Monday 15:00-16:00 Tuesday 10:00-12:00, Friday 14:00-16:00
E-mail	msaada@eul.edu.tr		
Phone		Office / Room No	Pharmacy Faculty
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This course provides a foundational understanding of pharmaceutical technology, focusing on the scientific and technical principles that underpin drug formulation and dosage form design. Students will explore how physicochemical properties, excipients, and formulation processes influence the safety, stability, and effectiveness of pharmaceutical products.
Objectives	The objective of this course is to provide students with a strong foundation in the principles and applications of pharmaceutical technology, emphasizing the scientific basis of dosage form design and drug delivery. Students will develop an understanding of pharmaceutical water quality, pre-formulation studies, excipients' roles, and the physicochemical factors that influence formulation development. The course aims to equip students with the knowledge and practical skills necessary to design, prepare, and evaluate pharmaceutical solutions, integrating solubility, dissolution, and formulation principles to ensure safe, effective, and high-quality drug products.
Learning Outcomes	By the end of this course, students will be able to: Explain the fundamental principles of pharmaceutical technology and their relevance to drug formulation and dosage form design. Describe the role and importance of pharmaceutical water in the preparation and manufacturing of pharmaceutical products. Identify and analyze key aspects of pre-formulation studies, including the physicochemical properties of drug substances. Recognize and evaluate the functions of pharmaceutical excipients and their effects on formulation performance. Apply concepts of solubility and dissolution to the development of effective and stable dosage forms. Demonstrate understanding of the mechanisms of drug dissolution and release, and their impact on bioavailability and therapeutic effectiveness. Prepare and assess pharmaceutical solutions using appropriate formulation techniques and quality standards. Integrate theoretical and practical knowledge to solve formulation-related problems and optimize drug delivery systems.
Programme Outcome Relations	**PO1 – Knowledge and Understanding** **PO2 – Practical and Professional Skills** **PO3 – Problem Solving and Critical Thinking** **PO4 – Research and Lifelong Learning:** **PO5 – Communication and Teamwork:** **PO6 – Ethics and Professionalism:**

Textbooks and/or References	1	Aulton's Pharmaceutics: The Design and Manufacture of Medicines – Michael E. Aulton & Kevin Taylor, 6th Edition, Elsevier.
	2	Remington: The Science and Practice of Pharmacy – David B. Troy & Paul Beringer, 23rd Edition, Pharmaceutical Press.
	3	Pharmaceutical Preformulation and Formulation – Mark Gibson, 3rd Edition, CRC Press.
	4	Physicochemical Principles of Pharmacy: In Manufacture, Formulation and Clinical Use – Alexander T. Florence & David Attwood, 6th Edition, Pharmaceutical Press.
	5	Pharmaceutical Dosage Forms and Drug Delivery Systems – Loyd V. Allen Jr., Nicholas G. Popovich, and Howard C. Ansel, 12th Edition, Wolters Kluwer.

WEEK	Date	TOPICS	Reference No - Section
Week 1	22-26/09/25	Introduction to Pharmaceutical Technology	1: 1.1 – 1.3
Week 2	29/09-03/10/25	pharmaceutical water	1: 2.1 – 2.2
Week 3	06-10/10/25	pharmaceutical water	1: 3.1 – 3.3
Week 4	13-17/10/25	Pharmaceutical Pre-formulation Studies (Part I)	1: 4.1 – 4.3
Week 5	20-24/10/25	Pharmaceutical Pre-formulation Studies (Part 2)	1: 4.4 – 4.6
Week 6	27-31/10/25	Pharmaceutical Excipients and Their Functions (Part I)	1: 5.1 – 5.3
Week 7	03-07/11/25	Pharmaceutical Excipients and Their Functions (Part II)	
Week 8	08-16/11/25	**Midterms**	
Week 9	17-21/11/25	Solutions and Solubility	1: 6.6 – 6.8
Week 10	24-28/11/25	Dissolution	1: 7.1 – 7.3
Week 11	01-05/12/25	Drug Release	1: 7.4 – 7.5
Week 12	08-12/12/25	Pharmaceutical Solutions and Their Preparation	1: 8.1 – 8.3
Week 13	15-19/12/25	Integration of Solubility, Dissolution, and Dosage Form Design	1: 5.4 – 5.6
Week 14	22-26/12/25	Review of Pharmaceutical Formulation Principles	1: 6.1 – 6.2
Week 15	29-31/12-25	Course Review and Revision	
Week 15-16	03-11/01/26	**Finals**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	03-11/01/26	50	
Semester Evaluation			50	
Midterm(s)	1	08-16/11/25	20	40.0
Quiz(zes)				
Project(s)				
Homework				
Laboratory works	7		30	60.0
Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	42	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)	7	14	Tutorial		
L preparation work	7	40			
Midterm exam (ME)	1	1.5	Final exam (FE)	1	1.5
ME preparation self study	1	8	FE preparation self study	1	15
			TOTAL :		164
			Recommended ECTS Credit (Total Hours / 30) :		5.47

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

"FACULTY OF PHARMACY"

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours			Credits	ECTS	Weekly Time Schedule
			T	A	L			
PHAR 333	Pharmaceutical Chemistry I		3		3	5		Saturday 09:00-12:00 saturday 13:00-16:00
		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Mohammed T. Qaoud	Office Hours Schedule	
E-mail			
Phone	5248599180	Office / Room No	-
Teaching Assistant(s)	-	Phone	-
E-mail	Mqaoud@ciu.edu.tr	Office / Room No	-

Course Objectives	This course aims to develop students' understanding of the chemical structures, structure–activity relationships, mechanisms of action, and rational optimization of cholinergic, adrenergic, and antiepileptic drugs.
Learning Outcomes	Upon successful completion of this course, students will be able to explain the structures, mechanisms of action, and structure–activity relationships of cholinergic, adrenergic, and antiepileptic drugs, and apply principles of medicinal chemistry to analyze and optimize their pharmacokinetic and pharmacodynamic properties.

Textbooks and/or References	
	Foye's Principles of Medicinal Chemistry-Lippincott Williams & Wilkins (2012)

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction to the Cholinergic System	
Week 2		Cholinergic Agonists	
Week 3		Acetylcholinesterase Inhibitors	
Week 4		Cholinergic Antagonists	
Week 5		Introduction to the Adrenergic System	
Week 6		Adrenergic Agonists	
Week 7		Adrenergic Antagonists	
Week 8		Midterm(s)	
Week 9		Medicinal Chemistry Optimization of Adrenergic Drugs	
Week 10		Introduction to Antiepileptic Drugs (AEDs)	
Week 11		Sodium Channel Blocking AEDs, GABAergic Antiepileptic Drugs	
Week 12		Newer Antiepileptic Agents	
Week 13		Pharmacokinetics and Toxicology of CNS Drugs	
Week 14		Integrated Review and Rational Drug Design	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	9/1/2026	50	
Semester Evaluation				
Midterm(s)	1	14-11-2025	20	
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory			30	#DIV/0!
Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study		
			TOTAL :		
			Recommended ECTS Credit (Total Hours / 25) :		

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR335	**Pharmacology I**	Elective	3	0	0	3		Tuesday (09:00-11:50)
Prerequisite		**Prerequisite to**						

Course Lecturer	Dr. Yazan Awad	**Office Hours Schedule**	
E-mail	yawad@eul.edu.tr		
Phone		**Office / Room No**	
Teaching Assistant(s)		**Phone**	
E-mail		**Office / Room No**	

Catalogue Descriptions	This course is based on understanding the main principles of pharmacology , Includes the pharmacokinetic and phramacodynamic of the drugs in which acting on body systems. based learning.
Course Objectives	Students will learn to understand the general concept of pharmacology including pharmacokinetics and pharmacodynamic. In addition to ANS system pharmacology
Learning Outcomes	LO1 - The general outcome goals are that students will; explain ; LO2 - The main principles of the pharmacology and drug tagets, LO3 - The details of the pharmacokinetic (absorption, distribution, metabolism and elimination) LO4 - The clinical pharmacokinetic parameters; clearance, elimination half lifea LO5 - The Drug interactions, adverse reactions and factors that change the drug actions LO6 - The pharmacologu of autonomic nervous system and drugs that acting on this system

Textbooks and/or References		
	1	Brunton LL, Hilal-Dandan R, Knollmann BC. Goodman & Gilman's: The Pharmacological Basis of Therapeutics. 14th ed. McGraw-Hill; 2022.
	2	Katzung BG, Vanderah TW. Basic and Clinical Pharmacology. 15th ed. McGraw-Hill; 2021.
	3	Rang HP, Dale MM, Ritter JM, Flower RJ, Henderson G. Rang & Dale's Pharmacology. 10th ed. Elsevier; 2023
	4	Tripathi KD. Essentials of Medical Pharmacology. 9th ed. Jaypee Brothers; 2023.

WEEK	Date		TOPICS	Reference No - Section
Week 1		23.09.2025	**Introduction to pharmacology**	1.2.3.4.
Week 2		30.09.2025	**Pharmacokinetisc: absorption**	1.2.3.4.
Week 3		07.10.2025	**Pharmacokinetisc: distribution**	1.2.3.4.
Week 4		14.10.2025	**Pharmacokinetisc: metabolsin and elemination**	1.2.3.4.
Week 5		21.10.2025	**Clinical pharmacokinetics**	1.2.3.4.
Week 6		28.10.2025	**Pharmacodynamics: Drug interact**	1.2.3.4.
Week 7		04.11.2025	**Pharmacodynamics: Receptor and Drug-recepter relationship**	1.2.3.4.
Week 8		11.11.2025	**Revision**	1.2.3.4.
Week 9	08 -	16.11.2025	**Midterm week**	
Week 10		25.11.2025	**Introduction to Austonomic Nervous System**	1.2.3.4.
Week 11		02.12.2025	**Drug acting on parasympathetic nervous system**	1.2.3.4.
Week 12		09.12.2025	**Drug acting on sympathetic nervous system**	1.2.3.4.
Week 13		16.12.2025	**Cardiovascular pharmacology I**	1.2.3.4.
Week 14		23.12.2025	**Cardiovascular pharmacology II**	1.2.3.4.
Week 15		30.12.2025	**Discussion and Revision**	
Week 15	03 -	11.01.2026	**Final Exam**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam / Homework	1	***10 - 19 .01.26***	60	100
Semester Evaluation				
Mid-term Exam	1	***16 - 24.11.25***	40	100
Quiz(zes)	0		0	0
Project(s) - Presentation	0		0	0
Homework(s)	0		0	0
Laboratory	0		0	0
Attendance	0		0	0

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study		
			TOTAL :		
			Recommended ECTS Credit (Total Hours / 30) :		

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR 337	Clinical Biochemistry		3			3		Monday 9:00-11:50
		Prerequisite to						

Course Lecturer	Prof. Dr. Şermin Tetik	Office Hours Schedule	Monday 13:30-14:30
E-mail	stetik@eul.edu.tr		
Phone	0392 660 2000/2592	Office / Room No	Dean room
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-

Course Objectives	To give basic information about diagnos / management ways of properties of biochemical pathways on both diseases and health, evaluating blood results, thearpeutic approaching on results of treatment and its importance in enzyme systems and biomarkers.
Learning Outcomes	LO1- learns basic concept of clinical biochemistry LO2- understands the relationship of kidney diseases, and electrolyte disorders with biochemistry pathways and test results, LO3- learns biomarker properties in cancer disease and knows their importance in diagnosis, and prognosis, LO4 - learns diabetes mellitus and thyroid disorders and knows their treatment in terms of clinical biochemistry, LO5- Learns cancer biochemistry and relevant in their test results' of prevelance and accurancy
Textbooks and/or References	Nessar Ahmed, Clinical Biochemistry, Oxford University Press, 2011 Martin Andrew Crook. Clinical Biochemistry and metabolic medicine. Taylor and Francis Group, 2013.

WEEK	Date	TOPICS	Reference No - Section
Week 1	9/30/2024	Introduction to clinical biochemistry	
Week 2	10/7/2024	Biochemical investigations and quality control.	
Week 3	10/14/2024	Kidney diseases.	
Week 4	10/21/2024	Fluid and electrolyte disorders	
Week 5	10/28/2024	Acid- base dsiorders	
Week 6	11/4/2024	Clinical enzymology and biomarkers	
Week 7	11/11/2024	Midterm working exam	
Week 8	16-24.11.24	Midterm	
Week 9	11/25/2024	Abnormalities of lipid metabolism	
Week 10	12/2/2024	Disorders of calcium, phosphate, and magnesium homeostasis	
Week 11	12/9/2024	Liver function tests	
Week 12	12/16/2024	Diabetes mellitus and hypoglycaemia	
Week 13	#########	Hypertion, oxidative stress, and inflammation	
Week 14	#########	Thyroid diseases	
Week 14	1/6/2025	Revision	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		60	
Semester Evaluation				
Midterm(s)	1		40	
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory				
Other- active join				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm	1	25.0	Final	1	40.0
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other	12	25.0	Self Study		15.0

TOTAL :		
Recommended ECTS Credit (Total Hours / 25) :		

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR339	PHARMACEUTICAL BIOTECHNOLOGY AND CELL CULTURE		3	0	0	3	4	Monday 15:00-18:00
Prerequisite		Prerequisite to						

Course Lecturer	Asst Prof Dr Osman Dadaş	Office Hours Schedule	
E-mail	odadas@eul.edu.tr		
Phone		Office / Room No	ECZ020
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This course provides a comprehensive overview of the immune system. The different cell types involved in innate and adaptive immunity, the effector mechanisms employed by the immune cells and how infections are cleared are covered throughout the course. Principles of immunological tolerance, allergy and auto-immune conditions as well as cancer immunity are also studied.
Objectives	The aim of the module is to familiarize the students with what pharmaceutical biotechnology is and the requirements in the handling and dispensing of biopharmaceuticals. Students will also learn about tissue culture techniques and how they are used to produce biopharmaceuticals.
Learning Outcomes	Upon successful completion of the course, students will be able to: 1. Explain the regulatory framework and development process of biopharmaceutical products, including preclinical studies, clinical trials, and approval pathways. 2. Describe the routes of administration of biopharmaceuticals and evaluate factors influencing their delivery and therapeutic effectiveness. 3. Analyze the pharmacokinetic and pharmacodynamic behavior of biopharmaceuticals following administration. 4. Explain the fundamental principles of cell culture technology and its application in the production and manufacturing of biopharmaceutical products.
Programme Outcome Relations	**PO1: LO1-4:4** **PO8:LO1,3,4: 3** **PO2: LO1-4:4** **PO9: LO1-4:3** **PO10: LO1: 3** **PO3: LO1-3:4** **PO11: LO1-4:4** **PO12: LO1-4:4** **PO4: LO1-4:4** **PO5: LO1-4:4**
	(1) Strongly disagree; **(2) Disagree;** **(3) Neither agree nor disagree;** **(4) Agree;** **(5) Strongly agree.**

Textbooks and/or References		
	1	Lecture notes
	2	
	3	

WEEK	Date	TOPICS	Reference No - Section
Week 1	26.09.2025	Introduction to the course	
Week 2	03.10.2025	What is pharmaceutical biotechnology? Role of pharmacists	Lecture notes
Week 3	06.10.2025	Drug development process	Lecture notes
Week 4	13.10.2025	Regulation of pharmaceutical biotechnology products	Lecture notes
Week 5	20.10.2025	Techniques used in pharmaceutical biotechnology	Lecture notes
Week 6	27.10.2025	Drug delivery systems	Lecture notes
Week 7	03.11.2025	Re-visiting important aspects of pharmaceutical biotechnology	Lecture notes
Week 8	08-16.11.2025	Midterm Exam	
Week 9	17.11.2025	Introduction to cell culture	Lecture notes
Week 10	24.11.2025	Manufacturing biopharmaceuticals using cell culture	Lecture notes
Week 11	01.12.2025	Technologies used in pharmaceutical biotechnology	Lecture notes
Week 12	08.12.2025	Pharmacokinetics of biopharmaceuticals	Lecture notes
Week 13	15.12.2025	Pharmacodynamics of biopharmaceuticals	Lecture notes
Week 14	22.12.2025	Factors affecting the response to biopharmaceuticals	Lecture notes
Week 15	29.12.2025	Revision	
Week 15-16	03-11.01.2026	Final Exam	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	
	Semester Evaluation				
	Midterm(s)	1		40	
	Quiz(zes)				
	Project(s)				
	Homework				
	Assignements/case studies				
	Attendance				

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study			Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Assignements/case studies			Tutorial		
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1	26	FE preparation self study	1	50
				TOTAL :	120
				Recommended ECTS Credit (Total Hours / 30) :	4.00

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR401	Pharmacognosy III	Compulsory	2	0	3	3	4	Tuesday 9:00-10:50 ECZ007
Prerequisite		Prerequisite to						

Course Lecturer	Prof. Dr. Fatih Demirci	Office Hours Schedule	Tuesday 14:00-16:00
E-mail			
Phone	2592	Office / Room No	aisstant room
Teaching Assistant		Phone	
E-mail	fdemirci@eul.edu.tr	Office / Room No	

Catalogue Descriptions	Pharmacognosy provides information about pharmacopoeia and related drugs of biological origin. PharmacognosyIII introduces students to botanical and chemical properties and therapeutically uses of plant originated crude drugs which contain Alkaloids. This course focuses on the identification methods, of medicinal alkaloids and protoalkaloids and their related herbal sources, chemical classification and biosynthesis of , pyridine, piperidine, quinoline, and tropane alkaloids, Opium alkaloids, steroidal alkaloids, and terpene-derived alkaloids, lectins, introduction to amino acid and their biosynthetical derivatives. This course also includes the evaluation of herbal drugs according to pharmacopoeia standards.
Objectives	To provide students with foundational knowledge and terminology of pharmacognosy III, connecting with pathologies and pharmaceutical concept, with emphasis on relational and entity-relationship models and the knowledge on alkaloid based secondary metabolites with pharmacological activity.
Learning Outcomes	Identifation of alkaloid drugs as active secondary metabolites from plant and natural sources, their supply, cultivation, collection, storage along with their special conditions. To classify the major alkaloid groups. Identify and source the different biosynthetic origin of alkaloids. Apply the methods for the quality control and confirmity tests of alkaloidal plant species. To apply microchemical tests for the alkaloid identification Pharmacopoeial evaluation and identification of herbal drugs containing alkaloids .

Programme Outcome Relations			
	PO1: 5 **PO2: 4** **PO3: 4** **PO4: 5** **PO5: 1** **PO6a: 1** **PO6b: 1**	**PO7: 3** **PO8: 3** **PO9: 1** **PO10a: 1** **PO10b: 1** **PO11: 3**	**(1) Strongly disagree;** **(2) Disagree;** **(3) Neither agree nor disagree;** **(4) Agree;** **(5) Strongly agree.**

Textbooks and/or References		
	1	Treas and Evans' Pharmacognosy, 2009, 16th edititon by William Charles Evans, ISBN: 9780702029332
	2	Pharmacognosy, Fundamentals, Applications, and Strategies, 2023, Editors: Simone Badal McCreath, Yuri N. Clement, 2nd ed, Academic P.,ISBN: 9780443186578
	3	Fundamentals of Pharmacognosy and Phytotherapy, 4th Edition, 2023, M. Heinrich, Elsevier, ISBN:9780323834346

WEEK	Date	TOPICS	Reference No - Section
Week 1	9/23/2025	**Introduction to Alkaloids**	
Week 2	10/30/2025	**Alkaloids, Tropane Alkaloids**	
Week 3	10/7/2025	**Tyrosine and Lysine derived Alkaloids**	
Week 4	10/14/2025	**Ornithine derived Alkaloids**	
Week 5	10/21/2025	**Pyrrolizidine – Quinolizidine – Indolizidine- Histone Alkaloids**	
Week 6	10/28/2025	**Tryptophan, Indole, Ergotamine Alkaloids**	
Week 7	11/4/2025	**Protoalkaloids - pseudo alkaloids**	
Week 8	11/11/2025	**Midterm EXAM**	
Week 9	11/19/2025	**Alkaloids in the Pharmacopoeia**	
Week 10	11/26/2025	**Alkaloid Herbal Drugs and Preparations**	
Week 11	12/3/2025	**Biotechnological Production of Alkaloids**	
Week 12	12/10/2025	**Alkaloid pharmacology and biological activity**	
Week 13	12/17/2025	**Alkaloid toxifications**	
Week 14	12/24/2025	**Hallusinojenic substances**	
Week 15	29-31/12-25	Overview - Revision - discussion	
Week 15-16	03-11/01/26	**Final EXAM**	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1	03-11/01/26	50	
	Semester Evaluation				
	Midterm(s)	1	08-16/11/25	50	
	Quiz(zes)				
	Project(s)				
	Homework				
	Laboratory works				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	28	Homework		
TLH self study			Project		
Quiz (Q)			Presentation	1	20
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	18	Final exam (FE)	1	18
ME preparation self study	1	18	FE preparation self study	1	18
				TOTAL :	120
				Recommended ECTS Credit (Total Hours / 30) :	4.00

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SYLLABUS

2024-2025 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR403	PHARMACEUTICAL TECHNOLOGY III		2	0	3	3		Friday : 9:00-11:00
		Prerequisite to						

Course Lecturer	Assist.prof.Dr.Musaab SAADA	Office Hours Schedule	
E-mail	msaada@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-
Course Objectives	Students will gain a comprehensive understanding of various drug delivery methods, including parenteral, pulmonary, ocular, and otic delivery routes, and their clinical applications. The course will cover critical factors involved in the design and formulation of drug delivery systems, such as stability, biopharmaceutics, and pharmacokinetics.		
Learning Outcomes	By the end of this course, students will be able to describe various drug delivery systems, including parenteral, pulmonary, ocular, and otic delivery, and explain how they work within the human body. Students will be able to design and optimize formulations for different drug delivery routes, considering factors like stability, solubility, and bioavailability. Students will be equipped to assess the stability of pharmaceutical products and apply appropriate stability testing protocols to ensure product safety and efficacy over time. They will apply the principles of sterilization techniques in a pharmaceutical setting, understanding the differences between thermal, chemical, and radiation sterilization methods. Students will learn to analyze and interpret data from sterilization and stability tests and apply regulatory guidelines to ensure compliance in pharmaceutical manufacturing. They will also be able to discuss the latest advancements in drug delivery technologies, such as sustained release systems, inhalers, and		
Textbooks and/or References	Aultons Pharmaceutics The Design and Manufacture of Medicines (Kevin M. G. Taylor, Michael E. Aulton) (z-lib.org)		

WEEK	Date	TOPICS	Reference No - Section
Week 1	04.10.24	Introduction	
Week 2	11.10.24	Parenteral Formulation I	
Week 3	18.10.24	Parenteral Formulation II	
Week 4	25.10.24	Parenteral Formulation III	
Week 5	1.11.24	Pulmonary Drug Delivery I	
Week 6	8.11.24	Pulmonary Drug Delivery II	
Week 7	15.11.24	Revision	
Week 8	22.11.24	Midterm exams	
Week 9	29.11.24	Ocular Drug Delivery	
Week 10	6.12.24	Otic Drug Delivery	
Week 11	13.12.24	Product Stability and Stability Testing	
Week 12	20.12.24	Principles of Sterilization	
Week 13	27.12.24	Sterilization in Practice	
Week 14	3.01.24	Discussion and Revision	
Week 15	10.01.24	Final exams	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		50	
	Semester Evaluation				
	Midterm(s)	1		20	
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory			30	
	Other				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	42	Project		
Quiz (Q)			Presentation		

Q preparation self study			Seminar		
Laboratory (L)	7	14	Tutorial		
L preparation work	7	40			
Midterm exam (ME)	1	1.5	Final exam (FE)	1	1.5
ME preparation self study	1	8	FE preparation self study	1	15
				TOTAL :	164

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours			Credits	ECTS	Weekly Time Schedule
			T	A	L			
PHAR 431	Pharmaceutical Chemistry III		3		3	5		Friday 09:00-12:00 Friday 13:00-16:00
		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Mohammed T. Qaoud	Office Hours Schedule	
E-mail			
Phone	5248599180	Office / Room No	-
Teaching Assistant(s)	-	Phone	-
E-mail	Mqaoud@ciu.edu.tr	Office / Room No	-

Course Objectives	This course provides an integrated understanding of molecular drug–receptor interactions, in silico drug design, pharmacokinetics, bioisosterism, and chemical nomenclature, linking physicochemical principles with rational drug design and optimization in medicinal chemistry.
Learning Outcomes	By the end of this course, students will be able to explain molecular drug–receptor interactions, apply principles of thermodynamics, bioinformatics, and pharmacokinetics in rational drug design, use bioisosterism for lead optimization, and correctly apply IUPAC nomenclature to drug-like molecules.

Textbooks and/or References	
	Foye's Principles of Medicinal Chemistry-Lippincott Williams & Wilkins (2012)
	T. W. Graham Solomons, Craig Fryhle Organic Chemistry, 10th Edition 2009

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction to Pharmaceutical & Medicinal Chemistry	
Week 2		Molecular Recognition and Drug–Receptor Interaction Theories	
Week 3		Physical Forces in Ligand–Protein Binding	
Week 4		Thermodynamics of Binding and Affinity Optimization	
Week 5		Bioinformatics & In Silico Drug Design	
Week 6		Drug Distribution & Transporters	
Week 7		Advanced Drug Metabolism & Enzyme Kinetics	
Week 8		Midterm(s)	
Week 9		Drug Excretion & Clearance, Bioisosterism & Drug Modification	
Week 10		Pharmacokinetic Modeling & Dose Optimization	
Week 11		Pharmaceutical Nomenclature & IUPAC Rules	
Week 12		Hydrocarbons and Aromatic Systems	
Week 13		Functional Group Nomenclature	
Week 14		Polycyclic and Special Structures	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	9/1/2026	50	
Semester Evaluation				
Midterm(s)	1	14-11-2025	20	
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory			30	#DIV/0!
Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study		
			TOTAL :		
			Recommended ECTS Credit (Total Hours / 25) :		

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR433	Pharmacology II	Compulsory	3	0	0	3		
Prerequisite		Prerequisite to						

Course Lecturer	Dr. Ayşe Gökyiğit	Office Hours Schedule	Tuesday 14.00-16.50
E-mail	agokyigit@eul.edu.tr		
Phone	90 392 660 2000-0533 860 9994	Office / Room No	
Teaching Assistant		Phone	3590
E-mail		Office / Room No	

Catalogue Objectives	This course is based on understanding the main concepts of the autocoids pharmacology, immuno pharmacology , endocrine pharmacology and pharmacology of the respiratory system
Learning Outcomes	The general outcome goals are that students will; explain - Autocoids and their role in various conditions , immunopharmacology -diseases and treatment involved in immun system, analgesic and antipyretic drugs , pharmacology of most common chronic endocrin disease (Diabetes Mellitus), and pharmacology of the respiratory system.

Textbooks and/or References		
	1	Rang and Dale's Pharmacology. H.P. Rang, M.M. Dale, J.M. Ritter, R.J. Flower. 6th edition.
	2	Goodman and Gillman's-The Pharmacological Basis of Therapeutics
	3	Katzung and Trevor- Basic & Clinical Pharmacology-13th e

WEEK	Date	TOPICS	Reference No - Section
Week 1	2/6/2026	Autocoids and Their Classification	1.2.3
Week 2	2/10/2026	Histamine and Serotonin	1.2.3
Week 3	2/17/2026	Nitric Oxide and Adenosine	1.2.3
Week 4	2/24/2026	Eicosanoids	1.2.3
Week 5	3/3/2026	Cytokines	1.2.3
Week 6	3/10/2026	Vasoactive Peptides	
Week 7	3/17/2026	NSAIDs	
Week 8	3/24/2027	**Gout**	
Week 9	3/31/2026	Revision	1.2.3
Week 10	4/7/2026	Midterm Exam Week	1.2.3
Week 11	4/14/2026	Oral Antidiabetics	1.2.3
Week 12	4/21/2026	Insulin	1.2.3
Week 13	4/28/2026	Bronchodilators	
Week 14	5/4/2026	Antitussives & Expectorants	1.2.3
Week 15	5/11/2026	Revision	
Week 16	5/18/2026	Final Exam	

Evaluation Tools

Final Exam Week				Weight in Semester Evaluation (%)
Evaluation Tool	Quantity	Date	Weight in Total (%)	
Final Exam	1	18.04.2026	60	
Semester Evaluation				#DIV/0!
Midterm(s)	1	07.04.2026	40	
Quiz(zes)				
Project(s)				
Homework				
Laboratory works				
Attendance				English

Evaluation Tool		Student Workload Hours	Language of Instruction:		Student Workload Hours
Theoretical lecturing hours (TLH)	Quantity		Evaluation Tool	Quantity	
TLH self study					
Quiz (Q)					
Q preparation self study					
Laboratory (L)					
L preparation work					
Midterm exam (ME)					
ME preparation self study					
TOTAL :					0
Recommended ECTS Credit (Total					0.00

EUROPEAN UNIVERSITY OF LEFKE - "FACULTY OF PHARMACY "

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR409	**Clinical Pharmacy I**	Compulsory	3	0	0	3		Thursday 13.00-16.50
Prerequisite		**Prerequisite to**						

Course Lecturer	Assist.Prof.Ayşe Gökyiğit	**Office Hours Schedule**	
E-mail	agokyigit@eul.edu.tr		
Phone	**5488501935**	**Office / Room No**	
Teaching Assistant(s)		**Phone**	
E-mail		**Office / Room No**	

Catalogue Descriptions	This course provides a study of clinical pharmacy and its application to patient care. It explores the role of clinical pharmacists in promoting rational drug use and the systematic approach to solving drug-related problems. Through case studies covering various diseases and conditions, students will apply clinical pharmacy principles, focusing on patient-oriented care and the appropriate use of pharmaceutical dosage forms.
Course Objectives	By the end of this course, students will be able to: Understand clinical pharmacy and patient-oriented pharmacy principles. Explain the role of clinical pharmacists in rational drug use.Describe clinical pharmacists' responsibilities in patient care.Apply a systematic approach to solve drug-related problems.Apply clinical pharmacy principles to diverse case studies.Explain the proper use of pharmaceutical dosage forms.
Learning Outcomes	Explain the specific roles and responsibilities of clinical pharmacists in patient care, Apply clinical pharmacy principles effectively in solving case studies covering a range of diseases and conditions, such as gastrointestinal disorders ,respiratory tract infections, hypertension, heart failure,asthma and COPD, understand fundamental principles of clinical pharmacy and patient-oriented pharmacy.

Textbooks and/or References		
	1	Pharmacotherapy Principles and Practice 6th
	2	DiPiro: Pharmacotherapy A Pathophysiologic Approach, 12e
	3	DiPiro: Pharmacotherapy Handbook, 11e
	4	Applied Therapeutics The Clinical Use of Drugs 11e

WEEK	Date	TOPICS	Reference No - Section
Week 1	03.10.2024	Introduction to Clinical Pharmacy, Patient Care Process	1.2.3.4.
Week 2	10.10.2024	Gastroesophagel Reflux disease	1.2.3.4.
Week 3	17.10.2024	Peptic Ulcer Disease	1.2.3.4.
Week 4	24.10.2024	Astma and COPD	1.2.3.4.
Week 5	31.10.2024	Hypertesion-I	1.2.3.4.
Week 6	07.11.2024	Hypertension-II & case discussion	1.2.3.4.
Week 7	14.11.2024	Heart Failure	1.2.3.4.
Week 8	**16 - 24/11/2024**	Midterm week	
Week 9	28.11.2024	Pregnancy and Lactation	1.2.3.4.
Week 10	05.12.2024	Antibiotic Selection	1.2.3.4.
Week 11	12.12.2024	Respiratory Tract Infections	1.2.3.4.
Week 12	19.12.2024	Urinary Tract Infections	1.2.3.4.
Week 13	26.12.2024	Summary	1.2.3.4.
Week 14	**10 - 19/01/2025**	Final Exam	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam / Homework	1		60	100
Semester Evaluation				
Mid-term Exam	1	***16 - 24/11/2024***	40	100
Quiz(zes)	0		0	0
Project(s) - Presentation	1		0	0
Homework(s)	0		0	0
Laboratory	0		0	0
Attendance	0		0	0

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study		
			TOTAL :		
			Recommended ECTS Credit (Total Hours / 30) :		

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR435	Physical Pharmacy 1		2	0	0	2		Tuesday:15-17:00
		Prerequisite to						

Course Lecturer	Assist.prof.Dr.Musaab SAADA	Office Hours Schedule	
E-mail	msaada@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	

Course Objectives	This course aims to provide a deeper understanding of the physical and chemical principles essential for pharmaceutical product formulation. By leveraging practical examples from "FASTtrack Physical Pharmacy" and "Martin's Physical Pharmacy," students will develop a strong theoretical foundation alongside practical skills. The course emphasizes the role of non-electrolytes, electrolytes, solubility phenomena, and drug stability, focusing on the practical applications of these principles in pharmaceutical development. Special attention is given to pre-formulation studies, micromeritics, particle science, and the
Learning Outcomes	Understand non-electrolytes and electrolytes, and their role in drug formulations. Comprehend ionic equilibria, buffers, and isotonic solutions with real-world pharmaceutical examples. Learn solubility phenomena and enhancement techniques. Apply pre-formulation studies for dosage form development. Understand micromeritics and particle science in solid dosage forms. Gain practical skills in the in-vitro assessment of dosage forms. Analyze drug stability and incompatibility in pharmaceutical preparations.
Textbooks and/or References	Ansels Pharmaceutical Dosage Forms and Drug Delivery Systems (Loyd V. Allen) Aultons Pharmaceutics The Design and Manufacture of Medicines (Kevin M. G. Taylor, Michael E. Aulton) (z-lib.org)

WEEK	Date	TOPICS	Reference No - Section
Week 1	01.10.24	Introduction to Physical Pharmacy	
Week 2	8.10.24	Introduction & Non-Electrolytes, Electrolytes	
Week 3	15.10.24	Ionic Equilibria, Buffers, and Isotonic Solutions	
Week 4	22.10.24	Holiday	
Week 5	29.10.24	Solubility Phenomena & Enhancement Techniques Part 1	
Week 6	5.11.24	Solubility Phenomena & Enhancement Techniques Part 2	
Week 7	12.11.24	Pre-formulation Studies	
Week 8	19.11.24	Midtern exans	
Week 9	26.11.24	Micromeritics	
Week 10	3.12.24	In-Vitro Assessment of Dosage Forms Part 1	
Week 11	10.12.24	In-Vitro Assessment of Dosage Forms Part 2	
Week 12	17.12.24	Pharmaceutical Solutions and Their Preparation (Part II)	
Week 13	24.12.24	Drug Stability	
Week 14	31.12.24	Drug Incompatibility	
Week 15	7.01.24	Revision	
Week 16	14.01.24	Final Exams	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		50	
	Semester Evaluation				
	Midterm(s)	1		50	
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory				
	Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours		Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours				Applied Hours		

Midterm				Final		
Quiz				Project		
Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Other				Self Study		
				TOTAL :		
				Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR 507	Biopharmacy and Pharmacokinetics		3			5		Tuesday 9:00-12:00
		Prerequisite to						

Course Lecturer	Prof. Dr. Şermin Tetik	Office Hours Schedule	Thuersday 13:30-14:30
E-mail	stetik@eul.edu.tr		
Phone	0392 660 2000/2592	Office / Room No	Dean room
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-

Course Objectives	Biopharmacy and pharmacokinetics involves the rational design and management of biopharmacetics to ensure that the required biological and physical performances of the therapeutic agent are attained. This course aims to ease the perceived difficulties of this subject and, hopefully, illustrate the significance of pharmaceutical approaches of bipharmacy and the unique role of the pharmacist in the development of medicines.
Learning Outcomes	LO1- learns properties of biopharmaceutical substituents LO2- understands the relationship of physicochemical and structural properties with pharmacological activity, LO3- learns tyeps of delivery system of drugs as oral, colloidal, polymer type and knows their importance in terms of drug activity and efficacy, LO4 - learns ADME system of metabolism and pharmokinetics LO5- gains wide sight to biopharmaceutics
Textbooks and/or References	Alexander V. Luyimibov. Encyclopedia of drug metabolism and interactions. Wiley, 2012 David Jones. Pharmaceutics, Pharmaceutical Press, 2008. Alexander T. Florence, David Attwood. Physicochemical Principles of Pharmacy. Pharmaceutical Press, 2015.

WEEK	Date	TOPICS	Reference No - Section
Week 1	10/1/2024	Introduction to the clinical relevans of biopharmacy	
Week 2	10/8/2024	The clinical relevans of biopharmacy and pharmacokinetics	
Week 3	10/15/2024	Dissolution of solid drugs	
Week 4	10/22/2024	Advers events:the role of formulation and delivery system	
Week 5	10/29/2024	Suspensions for oral administration	
Week 6	11/5/2024	Emulsions and creams, oinments, pastes, pharmaceutical lotions	
Week 7	11/12/2024	pediatric and geriatric biopharmacy	
Week 8	16-24.11.24	Midterm(s)	
Week 9	11/26/2024	Drug absorbtion basic and oral route	
Week 10	12/3/2024	Ocular, nasal and otic formlar	
Week 11	12/10/2024	Drug administration to brain, spinal cord, and tissues	
Week 12	12/17/2024	Respiratory biopharmaceutics	
Week 13	12/24/2024	Pharmacokinetics/ADME	
Week 14	12/31/2024	Pharmacokinetics/ADME	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		60	
Semester Evaluation				
Midterm(s)	1		40	
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory				
Other- active join			10	#DIV/0!

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm	1	25.0	Final	1	40.0
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other	12	25.0	Self Study		15.0

TOTAL :		
Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE- "Pharmacy"

"Pharmacy"

SYLLABUS

2023-2024 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR509	Microbial Control of Pharmaceuticals	Theory and Practice	3	0		3	6	Wednesday 09:00- 12:00
Prerequisite		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Emrah Güler	Office Hours Schedule	Wednesday 12:00- 15:00
E-mail	eguler@eul.edu.tr		
Phone		Office / Room No	ECZ021
Teaching Assistant(s)	-	Phone	-
E-mail		Office / Room No	-

Course Objectives	It is aimed to convey information about the structures and pathogenesis mechanisms of agents that threaten public and/or individual health, pose a high risk or cause frequent infections, and the pharmacology of the drugs used by these agents. The main aim of this course is to teach; Importance of microbial contamination in pharmaceutical industry, methods for investigating the quality of sterile and non-sterile pharmaceuticals, acceptance criteria for microbiological quality of non-sterile drugs and antimicrobial effectivenes and disinfectant efficacy tests used in pharmaceutical industry.
Learning Outcomes	• Define the microorganisms which have the potential to contaminate pharmceuticals, • List the sources and consequences of contamination, • Categorize the methods for the microbiological quality control of sterile and non-sterile pharmaceuticals ,• Define the limits of microorganisms for non-sterile drugs according to United States of Pharmacopoeia and European Pharmacopoeia, • Define the methods used for defining the microbiological quality of water for pharmaceuticals , • Define the methods used in pharmaceutical industry for the environmental control, • List the prevervatives used in pharmaceutical industry and explain in detail the tests used for determining the efficacy of antibiotics, • Explain sterilization methods and disinfectants in detail, • Explain the methods used for determining the efficacy of disinfectants. • Explain the importance of endotoxin in parenteral drug manufacturing and methods of endotoxin detection
Text Books	1 Lecture slides
	2

WEEK	Date	TOPICS	Reference No - Section
Week 1	04/10/2023	Introduction to the Lecture	Lecture slides 1
Week 2	11/10/2023	Introduction to Microbiology	Lecture slides 2
Week 3	18/10/2023	Sterilization, Disinfection and Antisepsis	Lecture slides 3
Week 4	25/10/2025	Pharmaceutical Microbiology	Lecture slides 4
Week 5	01/11/2023	Importance and Sources of Contamination	Lecture slides 5
Week 6	08/11/2023	Water Analysis	Lecture slides 6
Week 7	13-25/11/2023	Midterm Exam	
Week 8	29/11/2023	Microbiological Analysis of Nonsterile Pharmaceuticals	Lecture slides 7
Week 9	06/12/2023	Microbiological Analysis of Sterile Pharmaceuticals	Lecture slides 8
Week 10	13/12/2023	Environmental Monitoring	Lecture slides 9
Week 11	20/12/2023	Disinfectant and Disinfectant Efficacy Test	Lecture slides 10
Week 12	27/12/2023	Antimicrobial Effectiveness Test	Lecture slides 11
Week 13	03/01/2024	Endotoxin and endotoxin detection tests -1 and 2	Lecture slides 12
Week 14	06-19/01/2024	Final Exam	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	06-19/01/2024	60	
Semester Evaluation				
Midterm(s)	1	13-25/11/2023	40	
Quiz(zes)				
Project(s)				
Homework(s)				
Participation				
Presentations				

*** *Lifelong Learning Programme (LLP)* *** | Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	42.0	Applied Hours		
Midterm	1	1.0	Final	1	2.0
Midterm Study	1	20.0	Final Study	1	20.0
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar	1	10.0
Field Study			Presentation		
Other	1	15.0	Self Study	14	70.0
			TOTAL :		180.0
			Recommended ECTS Credit (Total Hours / 30) :		6

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2025-2026 FALL Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR513	Physicochemical Controls of Pharmaceuticals		3		5			Friday 9:00-11:50
		Prerequisite to						

Course Lecturer	Asist. Prof.Dr. Musaab Saada	Office Hours Schedule	
Phone		Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail	stetik@leu.edu.tr	Office / Room No	-

Course Objectives	Pharmacopieal methods and Reference Standards, Physicochemical Properties and Controls by Pharmacopieal Methods, physicochemical and instrumental method analysis of pharmaceutical dosage forms, controlling quality control of drugs by the physiochemical-related methods, Pharmaceutical calibration and qualification, validation of analytical methods, Quality control and release of raw materials and finished products, Impurities in Drug substance and final product and their control, stability studies and forced degradation studies of pharmaceuticals
Learning Outcomes	This course is designed to teach; - Importance of physicohemical properties and controls in pharmaceutical industry - General Informations about Pharmacopieal methods and Reference Standards - Methods for controlling the quality of pharmaceuticals according to Pharmacopoeias - To qualify and validate the analytical methods - Stability studies and forced degradation studies of pharmaceuticals,
Textbooks and/or References	

WEEK	Date	TOPICS	Reference No - Section
Week 1	10/3/2024	Introduction	
Week 2	10/10/2024	Pharmacopieal Methods and Reference Standards	
Week 3	10/17/2024	Pharmacopieal Methods and Reference Standards (continue)	
Week 4	10/24/2024	Physicochemical Properties and Controls by Pharmacopieal Methods	
Week 5	10/31/2024	Development of Analytical Methods	
Week 6	11/7/2024	Validation of Analytical Methods and Method Transfer	
Week 7-8	16-24.11.2024	Midterm	
Week 9	11/28/2024	Validation of Analytical Methods and Method Transfer (continue)	
Week 10	12/5/2024	Quality Control of Raw Materials and Finished Products	
Week 11	112.12.2024	In Process Quality Control of Raw Materials and Finished Products	
Week 12	12/19/2024	Drug Stability	
Week 13	12/26/2024	Forced Degradation Studies	
Week 14	1/2/2025	Revision	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	06-19.01.2025		50.00%
Semester Evaluation				
Midterm(s)	1	13-25.11.2024		50.00%
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory				
Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study		
			TOTAL :		
			Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE - "FACULTY OF PHARMACY "

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SYLLABUS

2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR515	SPECIAL TOPICS IN CLINICAL PHARMAC	Elective	3	0	0	5		Wed (09:00-11:50)
Prerequisite		Prerequisite to						

Course Lecturer	Dr. Yazan Awad	Office Hours Schedule	
E-mail	yawad@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant(s)		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	Special Topics in Clinical Pharmacy covers pharmacist roles in managing selected diseases like arthritis, gout, IBD, dermatitis, and infections. It emphasizes rational drug use and patient-focused care through case-based learning.
Course Objectives	Students will learn to apply clinical pharmacy principles, solve drug-related problems, select appropriate therapies, and implement antibiotic and prophylactic strategies.
Learning Outcomes	Students will manage treatment plans for key conditions, apply pharmacy principles to case studies, and support safe, effective, patient-centered care.

Textbooks and/or References		
	1	Pharmacotherapy Principles and Practice 6th
	2	DiPiro: Pharmacotherapy A Pathophysiologic Approach, 12e
	3	DiPiro: Pharmacotherapy Handbook, 11e
	4	Applied Therapeutics The Clinical Use of Drugs 11e

WEEK	Date		TOPICS	Reference No - Section
Week 1		24.09.2025	Introduction	1.2.3.4.
Week 2		01.10.2025	Osteoporosis	1.2.3.4.
Week 3		08.10.2025	Osteoarthritis	1.2.3.4.
Week 4		15.10.2025	Rheumatoid Arthritis	1.2.3.4.
Week 5		22.10.2025	Hyperuracemia and Gout	1.2.3.4.
Week 6		29.10.2025	Discussion and Revision	1.2.3.4.
Week 7		05.11.2025	Inflammatory Bowel Disease	1.2.3.4.
Week 8	08 -	16.11.2025	Midterm(s)	1.2.3.4.
Week 9		19.11.2025	Dermatological Drugs	
Week 10		26.11.2025	Dermatitis	1.2.3.4.
Week 11		03.12.2025	Antibiotic Selection	1.2.3.4.
Week 12		10.12.2025	Skin and Soft Tissue Infections	1.2.3.4.
Week 13		17.12.2025	Surgical Prophylaxis	1.2.3.4.
Week 14		24.12.2025	Fungal Infections	1.2.3.4.
Week 15		31.12.2025	Discussion and Revision	
Week 15	03 -	11.01.2026	Final Exam	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam / Homework	1	*03 - 11.01.2026*	60	100
Semester Evaluation				
Mid-term Exam	1	*08 - 16.11.2025*	40	100
Quiz(zes)	0		0	0
Project(s) - Presentation	0		0	0
Homework(s)	0		0	0
Laboratory	0		0	0
Attendance	0		0	0

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study		
			TOTAL :		
			Recommended ECTS Credit (Total Hours / 30) :		

EUROPEAN UNIVERSITY OF LEFKE

HEALTH SCIENCES FACULTY

SYLLABUS

2025-2026 FALL SEMESTER

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN103	Physiology	Compulsory	3	0	0	3	4	Monday 09:00-12:00 ASA100
Prerequisite		Prerequisite to						

Course Lecturer	Dr.Moath Alkhazali	Office Hours Schedule	Thursday 09:00-12:00 Friday 09:00-12:00
E-mail	malkhazali@eul.edu.tr		
Phone	5338604682	Office / Room No	School of Nursing-1
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This course is based on understanding the fundamental overview of human physiology , Includes the level of organization in the body from the cell to the body organ system. At the end of the course students have knowledge about homeostasis, basic structure of the cell, central and peripheral nervous system, cardiovascular system and circulation, immune system, respiratory, urinary, digestive, endocrine and reproductive system.
Course Objective	The aim of the course is to describe the structures and understand the functional mechanisms which enable the human body to maintain a stable internal environment at rest, but which also allow the body to react to change
Learning Outcomes	On successful completion of this course, all students will have developed knowledge and understanding of: (1) The principles of homeostasis and the roles of negative and positive feedback mechanisms. (2) The fundamental concepts of cell physiology. (3) The electrical and chemical signaling processes of the body. (4) The physiology of muscle types, including cardiac, smooth, and skeletal muscles. (5) The structure and functions of the central and peripheral nervous systems. (6) The physiology of the major organ systems, including the digestive, respiratory, immune, endocrine, reproductive, cardiovascular, and urinary systems.

Textbooks and/or References		
	1	Human Physiology: From cells to systems; Lauralee Sherwood, 9th Edition,2015
	2	
	3	

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction to physiology Homeostatic control systems	1:1
Week 2		Negative and positive feedback mechanisms	1:1
Week 3		Cell physiology: Mitochondria and ATP production, The plasma membrane: membrane structure and functions, transport mechanisms and tonicity	1:2,3
Week 4		fluid balance,Active transport mechanism, membrane potential	1:3
Week 5		physiology of nervous system	1:4,5,6,7
Week 6		Cardiovascular Physiology: Heart, cardiac cycle, blood vessel, blood pressure, blood physiology	1:9,10,11
Week 7		Respiratory system physiology; mechanics of the inspriation and expiration, lung volumes and transfer of the gas in the body	1:13
Week 8		**Midterms**	
Week 9		Urinary system physiology, nephron, urine production. Glomerular filtration, tubular reabsorption and tubular secreation	1:14
Week 10		Digestive system physiology. Digestion of the carbohydrates, proteins and fats. Absorption	1:15
Week 11		PHysiology of integumentary system	1:1
Week 12		Physiology of musculoskeletal system	1:8
Week 13		Endocrine system; gland and related hormones	1:18
Week 14		**Finals**	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		50	50.0
	Semester Evaluation				
	Midterm(s)	1		50	50.0
	Quiz(zes)				
	Project(s)				
	Homework				
	Laboratory works				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	42	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1	12	FE preparation self study	1	22
				TOTAL :	120
				Recommended ECTS Credit (Total Hours / 30) :	4.00

EUROPEAN UNIVERSITY OF LEFKE

COMN106 - TURKISH

SYLLABUS

Course Code	Course Name	Course Type	Weekly Course Hours			Credits	ECTS	Weekly Time Schedule
			T	A	L			
COMN106	TURKISH (For International Students)		2	0	0	2	2	
Prerequisite		Prerequisite to						

Course Lecturer	Assoc. Prof. Dr. Elnur Ağayev	Office Hours Schedule	
E-mail	eagayev@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant(s)	-	Phone	
E-mail	-	Office / Room No	

Catalogue Descriptions	Basic structure and sound features of Turkish, Turkish pronunciation, vowel harmony, Turkish sentence structure, frequently used words in Turkish, types of dialogue, English-Turkish translation studies, Turkish text reading exercises.
Course Objectives	For students whose mother tongue is not Turkish, to make them comprehend the basic features of Turkish and to enable students to use Turkish at a basic level in oral and written form through frequently used vocabulary/dialogue studies.
Learning Outcomes	1. Comprehends the basic phonetic and structural features of Turkish 2. Applies the pronunciation features of Turkish 3. Acquires the basic vocabulary of Turkish 4. Develops Turkish text reading skills 5. Can use Turkish dialogues that are frequently used in daily life.

Textbooks and/or References		
	1	Birsen Çankaya ve diğerleri. Easy Turkish Course. İstanbul: Fono Yayınları, 2006.
	2	Kurtuluş Öztopçu. Elementary Turkish. İstanbul, 2006.
	3	COM106 Turkish lecture notes/slides
	4	Doğan Günay, Özdan Fidan ve diğerleri, Yabancılar İçin Türkçe Ders Kitabı + Alıştırma Kitabı, Papatya Yay., Ankara: 2013.

WEEK	Date	TOPICS	Reference No - Section
Week 1		Turkish alphabet, translation exercises examples, Turkish sounds	
Week 2		Turkish sentence structure, translation exercises, vocabulary examples	
Week 3		Frequently used expressions, daily language sentences 1, translation exercises	
Week 4		Days, colours, numbers, months, seasons, adjectives, Frequently used verbs 1	
Week 5		Turkish alphabet and its pronunciation, this/that (bu/şu/o)	
Week 6		Plural suffix (-lar/-ler), interrogative particle	
Week 7		How many, how much (kaç?), ordinal numbers (kaçıncı?), Frequently used verbs 2	
Week 8		**Midterm Exam**	
Week 9		There is/isn't (var/yok) cont., opposite adjectives, translation exercises, vocabulary	
Week 10		Present continuous, daily routine, free time activities	
Week 11		Reading practice, want to (-mak istemek), my family, possesive suffixes	
Week 12		Countries, nationalities, languages, away from my family, kendi+possesive pronoun	
Week 13		Hours, special days, translation exercises, reading practice	
Week 14		Our body, permission and request sentences, revision	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	
	Semester Evaluation				
	Midterm(s)	1		40	
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory				
	Other				

*** *Lifelong Learning Programme (LLP)* *** | Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	28.0	Applied Hours		
Midterm	1	1.0	Final	1	1.0
Midterm Study	2	6.0	Final Study	3	9.0
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study	7	14.0
			TOTAL :	60	60.0

EUROPEAN UNIVERSITY OF LEFKE

COM108/COMN108 - HISTORY

SYLLABUS

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COM108/COMN108	HISTORY (For International Students)	Compulsory	2	0	0	2	2	
Prerequisite		Prerequisite to						

Course Lecturer	Assoc. Prof. Dr. Elnur AĞAYEV	Office Hours Schedule	Monday: 09:00-12:00
E-mail	eagayev@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	The course provides a detailed exposure on the history of the construction of the Turkish Republic under the light of Kemal Atatürk's principles this course is designed for Turkish speaking students. COM108 is designed for non-Turkish speaking foreign students. The aim of the course is to introduce a brief history of Turkish Republic and Cyprus. Social, economic and political aspects and effects of Western Civilization on Turkey and Cyprus. Relations with Middle East.
Objectives	In this course the students who have been studying at different departments of our university will learn how the Ottoman Empire collapsed and a new Turkish Republic was found in the early 20 th. century. At the same time the students will learn the Eastern Question, Armenian Question and Cyprus Question which were created by different policy powers in the historical period. By the end of the semester the students will be able to understand why Mustafa Kemal is an important figure in the history of Turkey and the world. Besides, they will learn the Turkish Revolution and the estabilishment philosphy of the Turkish Republic and the principles of Mustafa Kemal
Learning Outcomes	On successful completion of this course, all students will have developed knowledge and understanding of: 1. Analyzes the developments after World War I and the attitude of Mustafa Kemal and his friends in the face of these developments. 2. Understanding the Turkish Foreign Policy of the Atatürk Era. 3. They will have basic information about the political developments in Turkey and the world during and after the Second World War. 4. To have general information about the History of Cyprus.

Textbooks and/or References	1	Lewis, Bernard, **The Emergence of Modern Turkey**, London, 1967.
	2	Kinross, Patrick, **Atatürk The Rebirth of a Nation**, A Phoenix Giant Paperback Publishing, London, 1998.
	3	Luke, Harry, **Cyprus Under The Turks**
	4	COM108 History lecture notes/slides
	5	Denktash, Rauf R, **The Cyprus Triangle**, The Office of the Turkish Republic of Northern Cyprus, New York, 1988.

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction of the Bibliography	
Week 2		The First World War and the Ottoman Empire	
Week 3		The First World War and the Ottoman Empire	
Week 4		The Turkish War of Independence and Turkish Victory (First Phase)	
Week 5		The Turkish War of Independence and Turkish Victory (First Phase)	
Week 6		The Turkish War of Independence and Turkish Victory (Second Phase)	
Week 7		Lausanne Agreement and Proclamation of the Republic of Turkey	
Week 8		**Midterm Exam**	
Week 9		The Strategical Importance of Cyprus	
Week 10		Cyprus Under the Ottoman Rule	
Week 11		National Struggle of Turkish Cypriots	
Week 12		National Struggle of Turkish Cypriots	
Week 13		Cyprus Question	
Week 14		Cyprus Question	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	
	Semester Evaluation				
	Midterm(s)	1		40	
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory work(s)				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	28	Homework		
TLH self study	7	21	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	2	6	FE preparation self study	2	6
				TOTAL :	63
				Recommended ECTS Credit (Total Hours / 30) :	2.00

EUROPEAN UNIVERSITY OF LEFKE

SYLLABUS
2025-2026 Fall Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN192	English 2		3	0		3	3	
Prerequisite		Prerequisite to						

Course Lecturer	Mehmet Mert	Office Hours Schedule	Monday 09:00-11:00
E-mail	mmert@eul.edu.tr		
Phone		Office / Room No	AS232
Teaching Assistant(s)	-	Phone	2684
E-mail	-	Office / Room No	-

Course Objectives	This course introduces the main grammatical structures to the students and helps them to develop their listening, speaking , reading and writing skills as well as vocabulary and pronunciation. The students are provided with clear rules and example sentences. The lessons contain high frequency vocabulary that the students are likely to come across during their studies and future their future careers
Learning Outcomes	1.The students will be able to understand and use English structures accurately to express themselves. 2. The students will be able to learn and use the vocabulary learnt during the lessons.

Textbooks and/or		
	1	English File, Intermediate Plus, Student's Book, Christina Latham- Koenig, et al, Oxford University Press, Third Edition
	2	English File, Intermediate Plus, Workbook, Christina Latham- Koenig, et al, Oxford University Press, Third Edition

WEEK	Date	TOPICS	Reference no to learning outcomes
Week 1		Obligation, Necessity	1.2
Week 2		Prohibition, advice, DIY	1.2
Week 3		can, could, be able to	1.2
Week 4		vocabulary, things on the table	1.2
Week 5		Phrasal verbs	1.2
Week 6		verb patterns	1.2
Week 7		have something done	1.2
Week 8		at the hairdresser's	1.2
Week 9		**MID TERMS**	
Week 10		Passive	1.2
Week 11		Reported Speech	1.2
Week 12		Past Perfect	1.2
Week 13		be,do,have	1.2
Week 14		Auxiliary + main verbs	1.2
Week 15		Question tags	1.2
Week 16		**FINALS**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		60	100
Semester Evaluation				
Midterm(s)	1		40	100.0
Quiz(zes)				
Project(s)				
Online Homework(s)				
Laboratory				
Other				

*** *Lifelong Learning Programme (LLP)* *** | Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	
Theoretical Hours	13	13x3	39
Midterm	1	1x1	1
Self Study for midterm	1	39x1	39
Final Exam	1	1x1	1
Self Study for final	1	10x1	10
		TOTAL :	90
		Recommended ECTS Credit (Total Hours / 25) :	90/30=3

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2024-2025 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR 108	Social Pharmacy		2			2		Tuesday 11:00-13:00
		Prerequisite to						

Course Lecturer	Prof. Dr. Şermin Tetik	Office Hours Schedule	
E-mail	stetik@eul.edu.tr		
Phone		Office / Room No	2592
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-

Course Objectives

This course will discuss about basic concepts of
1. Public health and national health programs
2. Preventive healthcare
3. Food and nutrition related health issues
4. Health education and health promotion
5. General roles and responsibilities of pharmacists in public health

Learning Outcomes

Upon successful completion of this course, the students will be able to
1. Discuss about roles of pharmacists in the various national health programs
2. Describe various sources of health hazards and disease preventive measures
3. Discuss the healthcare issues associated with food and nutritional substances
4. Describe the general roles and responsibilities of pharmacists in public health

Textbooks and/or References

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction to Social Pharmacy	
Week 2		Health Services and Role of Pharmacists in the public health following	
Week 3		Concepts of Health	
Week 4		Determinants of Health	
Week 5		Indicators of Health	
Week 6		Health policy indicators	
Week 7		**Midterm(s)**	
Week 8		Family planning	
Week 9		Vaccine	
Week 10		Psycosocial Pharmacy	
Week 11		The Community Pharmacist: Perceived Barriers and Patient-Centered Care Communication	
Week 12		The Community Pharmacist: Perceived Barriers and Patient-Centered Care Communication	
Week 13		Health Literacy and Communication Training Program	
Week 14		Revision	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		50	
Semester Evaluation				
Midterm(s)	1		50	
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory				
Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		

Other				Self Study		
				TOTAL :		
					Recommended ECTS Credit (Total Hours / 25) :	

EUROPEAN UNIVERSITY OF LEFKE

Faculty of Pharmacy

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR 130 PHAR130-MRGN202	First Aid	Compulsory	3	0	0	3	5	Friday 15:00-17:50 ASA100
Prerequisite		**Prerequisite to**						

Course Lecturer	Assist. Prof. Dr. Tuğba Kartal	**Office Hours Schedule**	Monday 14:00-16:00 Thursday 14:00-16:00
E-mail	tkartal@eul.edu.tr		
Phone	2562	**Office / Room No**	
Teaching Assistant		**Phone**	
E-mail		**Office / Room No**	

Catalogue Descriptions	This course introduces the fundamental principles and practices of first aid, with a focus on the recognition and appropriate management of emergency situations. The course addresses basic life support, CPR and AED use, respiratory and circulatory emergencies, poisoning, wound management, environmental illnesses, sudden medical conditions, and the initial approach to traumatic injuries. Emphasis is placed on scene assessment, patient evaluation, safe intervention principles, and patient transport techniques within the scope of first aid knowledge.
Objectives	The objective of this course is to equip students with foundational knowledge of emergency recognition and first aid principles, enabling them to assess situations appropriately and determine suitable initial interventions. The course aims to develop informed decision-making in potentially life-threatening conditions and to promote awareness of safe and responsible first aid practices. Additionally, it seeks to foster a systematic and composed approach to emergency response.
Learning Outcomes	Upon successful completion of the course, students will be able to: (1) explain the fundamental concepts and principles of first aid and its importance in emergency care; (2) recognize various emergency situations and determine appropriate first aid interventions based on situational assessment; (3) perform basic life support (BLS) procedures in life-threatening conditions such as airway obstruction, cardiac arrest, and loss of consciousness; (4) apply appropriate first aid interventions for common emergencies including bleeding, burns, fractures, and poisoning; (5) describe the basic principles of managing drug-related emergencies and pharmacological first aid within the scope of first aid practice; (6) explain the ethical and legal responsibilities associated with first aid applications; (7) identify and correctly use essential first aid equipment; (8) assess injured or ill individuals in emergency situations and communicate effectively with healthcare professionals during referral or handover.

Programme Outcome Relations	**PO1: 4** **PO2: 5** **PO3: 4** **PO4: 4** **PO5: 4**	**PO6: 4** **PO7: 3** **PO8: 2** **PO9: 3**	**(1) Strongly disagree;** **(2) Disagree;** **(3) Neither agree nor disagree;** **(4) Agree;** **(5) Strongly agree.**

Textbooks and/or References	1	St John Ambulance. (2022). First aid reference guide. London, UK: St John Ambulance.
	2	The Canadian Red Cross Society. (2017). Comprehensive guide for first aid & CPR. Canadian Red Cross Society.
	3	Indian Red Cross Society. (2016). Indian first aid manual (7th ed.). Indian Red Cross Society National Headquarters.
	4	International Committee of the Red Cross. (2015). First aid. International Committee of the Red Cross.
	5	Belgian Red Cross-Flanders. (2006). European first aid manual. Belgian Red Cross-Flanders.
	6	First Aid Notes 2019. (2019). First aid notes 2019. https://www.studocu.com/row/document/jomo-kenyatta-university-of-agriculture-and-technology
	7	International Federation of Red Cross and Red Crescent Societies. (2019). A short introduction to psychological first aid (PFA). IFRC Psychosocial Centre. https://pscentre.org/wp-content/uploads/2019/07/PFA-Intro-low.pdf

WEEK	Date	TOPICS	Reference No - Section
Week 1	2/6/2026	Introduction to First Aid, Responding to Emergency, Legal and Ethical Considerations	Reference 1, Chapter 4; Reference 3, Chapter A1; Reference 6, Chapter 5, kaynak ekle
Week 2	2/13/2026	Basic Life Support (Check, Call, Care)	Reference 2, Chapter 3; Reference 3, Chapter A6; Reference 4, Chapter 6;
Week 3	2/20/2026	CPR & AED	Reference 1, Chapter 23; Reference 2, Chapter 6; Reference 6, Chapter 13
Week 4	2/27/2026	Body Systems, Patient Transport Techniques	Reference 3, Chapter B1; Reference 3, Chapter F1; Reference 4, Chapter 19
Week 5	3/6/2026	Airway Obstruction, Breathing Emergencies	Reference 1, Chapter 39; Reference 2, Chapter 4; Reference 3, Chapter B5;
Week 6	3/13/2026	Circulation Emergencies	Reference 1, Chapter 45; Reference 2, Chapter 5; Reference 3, Chapter C1
Week 7	**3/20/2026**	**Ramadan Festival**	
Week 8	**3/27/2026**	Sudden Medical Emergencies	2-11; 3-G; Reference 2, Chapter 11; Reference 3, Chapter G
Week 9	4/3/2026	Poisoning	Reference 2, Chapter 13; Reference 3, Chapter I; Reference 6, Chapter 43
Week 10	**04/12.04.2026**	**Midterms**	
Week 11	4/17/2026	Environmental Illness	Reference 1, Chapter 61; Reference 2, Chapter 12; Reference 4, Chapter 17
Week 12	4/24/2026	Wound Care, Burns, Electrical Shock	Reference 2, Chapter 8; Reference 3, Chapter D; Reference 1, Chapter 55;
Week 13	**5/1/2026**	**Labour & Spring Festival**	
Week 14	5/8/2026	Head, Neck, and Spinal Injuries Bone, Muscle, and Joint Injuries, Psychological First Aid	Reference 1, Chapter 67; Reference 2, Chapter 9 Reference 3, Chapter D; Reference 4, Chapter 9
Week 15	5/15/2026	First Aid in Disasters and Emergencies A Sustainable Approach to Community Health	Reference 7
Week 16	**16/25.05.2026**	**Finals**	

	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Evaluation Tools	**Final Exam**	1	16/25.05.2026	50	
	Semester Evaluation			50	
	Midterm(s)	1	04/12.04.2026	50	100.0
	Quiz(zes)				
	Project(s)				
	Homework				
	Laboratory works				
	Attendance				

**** Lifelong Learning Programme (LLP) ****

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	3	Homework		
TLH self study	14	42	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	20	Final exam (FE)	1	40
ME preparation self study			FE preparation self study	1	30
			TOTAL :		135
			Recommended ECTS Credit (Total Hours / 30) :		5

EUROPEAN UNIVERSITY OF LEFKE

Faculty of Pharmacy

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR 124	Communication Skills in Community Pharmacy	Compulsory	3	0		3	5	Thursday: 10:00 - 12:50
Prerequisite		Prerequisite to						

Course Lecturer	Dr. Yazan Awad	Office Hours Schedule	
E-mail	yawad@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This course equips pharmacy students with essential communication skills for effective patient-centered care in community pharmacy settings. It emphasizes verbal, non-verbal, written, and visual communication strategies, focusing on counseling, patient education, conflict resolution, and interprofessional collaboration. Students will practice through case studies, role-plays, projects, and presentations to develop confidence and competence in real-world pharmacy interactions.
Objectives	This course aims to develop students' ability to communicate clearly and empathetically with patients and healthcare professionals, while training them in essential counseling techniques, motivational interviewing, and the handling of sensitive patient scenarios. Additionally, it seeks to enhance teamwork, presentation, and case analysis skills relevant to community pharmacy practice.
Learning Outcomes	By the end of the course, students will be able to: - Demonstrate effective verbal and non-verbal communication in patient counseling. - Apply communication strategies to improve medication adherence and lifestyle modification. - Handle challenging scenarios such as conflict, cultural differences, and sensitive health topics. - Collaborate with healthcare professionals using clear, respectful, and professional communication. - Deliver structured presentations and case analyses that reflect patient-centered care principles.

Programme Outcome Relations			
	PO1: 5 PO2: 4 PO3: 4 PO4: 5 PO5: 1 PO6a: 1 PO6b: 1	PO7: 3 PO8: 3 PO9: 1 PO10a: 1 PO10b: 1 PO11: 3	(1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree

Textbooks and/or References		
	1	Beardsley, R. (2023). Communication skills in pharmacy practice (7th ed.). Wolters Kluwer. ISBN: 9781975105457
	2	
	3	

WEEK	Date	TOPICS	Reference No - Section
Week 1	02–06/02/26	Introduction to Communication in Pharmacy	1
Week 2	09–13/02/26	Verbal & Non-verbal Communication	1
Week 3	16–20/02/26	Ischemic Heart Diseases	1
Week 4	23–27/02/26	Patient Counseling Techniques	1
Week 5	02–06/03/26	Handling Sensitive Topics (e.g., adherence, stigma)	1
Week 6	09–13/03/26	Revision & Discussion	1
Week 7	16–20/03/26	Case Studies & Role-Play	1
Week 8	23–27/03/26	Conflict Resolution & Difficult Patient	1
Week 9	30/03–03/04/26	Interprofessional Communication	1
Week 10	**04–12/04/26**	**Midterm(s)**	
Week 11	13–17/04/26	Presentation Skills in Pharmacy	1
Week 12	20–24/04/26	Cultural Competence in Communication	1
Week 13	27/04–01/05/26	Technology & Digital Communication in Pharmacy	1
Week 14	04–08/05/26	Project Presentations	1
Week 15	11–15/05/26	Revision & Discussion	1
Week 15-16	16–25/05/26	**Finals**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	04–12/04/26	50	
Semester Evaluation			50	
Midterm(s)	1	16–25/05/26		
Quiz(zes)				
Project(s)	1		25	25.0
Presentation	1		25	25.0
Case Studies & Role-Play	1			
Attendance				

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	42	Project	1	10
Quiz (Q)			Presentation	1	12
Q preparation self study			Seminar		
Laboratory (L)			Case Studies & Role-Play	1	12
L preparation work					
Midterm exam (ME)			Final exam (FE)	1	1
ME preparation self study			FE preparation self study	1	18
				TOTAL :	137
				Recommended ECTS Credit (Total Hours / 30) :	4.57

EUROPEAN UNIVERSITY OF LEFKE

Common Courses

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN180	Computer Literacy	Compulsory	3	0	0	3	5	
Prerequisite		Prerequisite to						

Course Lecturer	Önder Onursal	Office Hours Schedule	
E-mail	onursal@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant		Phone	
E-mail		Office / Room No	

Course Objectives	This course focuses on the computer applications which are necessary for every student to be able to use during his/her undergraduate study. Students will be covering the basic components of computers, such as Random Access Memory (RAM), Read Only Memory (ROM) and Central Processing Unit (CPU), relationship between this hardware's. Students will be able differentiate between different types of operating systems, application software's and web-based applications. Students learn basic information about network connection and the types. Except those information, each student will learn how to save himself/herself against the viruses. All topics support the learning environment by lab sessions and each student will be able to use office applications.
Learning Outcomes	At the end of this course the students: 1. Use Windows OS Controls and Manage Files. 2. Having knowledge how to get connected, use browser, send email, and lunch search engine. 3. Ability to understand Application Software in action including software for word processing, spreadsheet, database management, Presentation, network and graphics. 4. Develop an understanding of diversity in hardware and software 5. Having knowledge how to use multimedia software
Textbooks and/or References	1 2 3

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction - Overview of the course	
Week 2		Types of Computers	
Week 3		Input and output Devices	
Week 4		Memory	
Week 5		Storage	
Week 6		System Unit	
Week 7		System Software	
Week 8		Application Software	
Week 9		Communication	
Week 10	04-12.04.2026	Midterm Exams	
Week 11		Networks	
Week 12		Communication Devices	
Week 13		Types of Websites	
Week 14		Digital Security	
Week 15		Ethics and Privacy	
Week 16	16-25.05.2026	Final Exams	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		50	
	Semester Evaluation			50	
	Midterm(s)	1		50	100.0
	Quiz(zes)				
	Project(s)				
	Homework				
	Laboratory works				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	58	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work			Other	1	30
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1	8	FE preparation self study	1	10
				TOTAL :	150
				Recommended ECTS Credit (Total Hours / 30) :	5.00

EUROPEAN UNIVERSITY OF LEFKE

BIOCHEMISTRY

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN114	Biochemistry	Compulsory	3	0	0	3	4	Friday 12:00-15:00
Prerequisite		Prerequisite to						

Course Lecturer	Asst. Prof. Dr. Osman Dadaş	Office Hours Schedule	
E-mail	odadas@eul.edu.tr		
Phone		Office / Room No	ECZ020
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This module aims to introduce how biomolecules are produced structurally and what their functions are. Metabolic pathways and several biochemically relevant diseases are discussed throughout the module. Concepts of solubility in water, pH differences and how these properties can affect the structure and function of biomolecules are also discussed.
Objectives	To understand chemical bonds in biology and how molecules are made up. To understand the importance of water and principles of solubility and buffers. To become familiar with acid, base and pH concepts. To understand the structure and function of nucleic acids, carbohydrates, lipids and proteins. To understand the principles of enzymes, their mechanism of action, importance of enzyme structure, regulation of enzymes, enzyme kinetics and enzyme inhibition mechanisms. To learn about metabolism with a focus on carbohydrate metabolism to produce energy within the body. To understand the concepts of how excess energy is stored within living organisms and how glucose could be produced from non-carbohydrate precursors.
Learning Outcomes	Upon successful completion of the course, students will be able to: 1. Understand chemical bonds in biology and how molecules are built 2. Understand the importance of water and principles of solubility, buffers and acid/base concepts. 3. Understand the structure and function of biomolecules. 4. Understand the function and principles of enzymes. 5. Understand the concepts of metabolism and energy production and utilization.

Programme Outcome Relations			
	PO1: **PO2:** **PO3:** **PO4:** **PO5:** **PO6a:** **PO6b:**	**PO7:** **PO8:** **PO9:** **PO10a:** **PO10b:** **PO11:**	**(1) Strongly disagree;** **(2) Disagree;** **(3) Neither agree nor disagree;** **(4) Agree;** **(5) Strongly agree.**

Textbooks and/or References		
	1	Harper's Illustrated Biochemistry - Thirty Second Edition
	2	Lecture Notes
	3	

WEEK	Date	TOPICS	Reference No - Section
Week 1	06.02.2026	Introduction to Biochemistry	1,2
Week 2	13.02.2026	Chemical bonds in biology	1,2
Week 3	20.02.2026	Water, solubility and pH	1,2
Week 4	27.02.2026	Structure and function of carbohydrates	1,2
Week 5	06.03.2026	Structure and function of nucleic acids	1,2
Week 6	13.03.2026	Structure and function of lipids	1,2
Week 7	20.03.2026	National Holiday	1,2
Week 8	27.03.2026	Amino acids	1,2
Week 9	03.04.2026	Protein structure	1,2
Week 10	04-12.04.2026	Midterm Exams	
Week 11	17.04.2026	Enzymes - regulation and inhibition mechanisms	1,2
Week 12	24.04.2026	Introduction to metabolism and glycolysis	1,2
Week 13	01.05.2026	Citric acid cycle and oxidative phosphorylation	1,2
Week 14	08.05.2026	Excess glucose storage and gluconeogenesis mechanisms	1,2
Week 15	15.05.2026	Course Review and Revision	
Week 16	16-25.05.2026	Final Exams	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	
	Semester Evaluation			40	
	Midterm(s)	1		40	100.0
	Quiz(zes)				
	Project(s)				
	Homework				
	Laboratory works				
	Attendance				

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	58	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1	8	FE preparation self study	1	10
				TOTAL :	120
				Recommended ECTS Credit (Total Hours / 30) :	4.00

FINAL INTERNATIONAL UNIVERSITY- FACULTY OF PHARMACY

Pharmacy Program

Course Outline

2022-2023 fall Semester

Course Code	Course name	Course Type	Weekly Course Hours	Total Credit	ECTS	Pre-requisite	Language of Instruction
PHRM216	PHARMACEUTIC	Area Core	2 0 0	2	3	None	English

Instructor	**Assist. Prof. Dr. Najat Agiel**	**Asistant**	None
e-mail address	najat.agiel@final.edu.tr	**e-mail address**	.....
Ofice No.		**Ofice No.**	.....
Ofice Telefone No.	2012	**Ofice Telefone No.**	.....
Office hours		**Office hours**	.....
Web Address	...	**Web Address**	.....
Coordinator	None		
e-mail address	.....		
Ofice No.	.....		Monday:9:00-10:00
Ofice Telefone No.	.....		
Office hours	.....		
Web Address	.....		

Course Description	The aim of this course is: to provide knowledge useful to recognize the most used medicinal plants, in particular those of pharmaceutical, herbalistic, cosmetic and voluptuary use. Pharmaceutical botany is a subject that studies the traditional or folk use of plant to prevent and treat diseases. It also involves the identification of the species of plants, traditional classification, cataloging, as well as active ingredients to share extraction, pharmacological research. This course will include the Classification of plant kingdom, and presentation of its sections (Gymnospermae and Angiospermae), primitive plant families, advanced plant families, important micro and macroalgae species in pharmacy, bacteriophyta, micro and macrofungi. There will be an illustration of the important plant families with medicinal potential, referring to plant species used in preparation of herbal medicines and in traditional medicine.
General objective of the course	Identify, distinguish and compare the medicinal plants based and their taxonomy, morphology, anatomy, and physiology, also give a general idea about primary and secondary metabolites in plants and their presence in different cells, tissue, and organs . This course provides the knowledge and skills obtained that will serve as the basis for courses Pharmacognosy I and Pharmacognosy II.
Learning Outcomes	After passing the course the student will be able to: 1. Explain the basic concepts of botany; 2.Define and compare the types and roles of plant tissues; 3.Define the morphological and anatomical characteristics of vegetative and generative plant organs; 4. Describe the functions of plant organs; 5. Describe the processes of pollination, fertilization and dispersal of seeds and fruits; 6. Differentiate and identify the species of selected families with special emphasis on medicinal plant species; 7. Perform microscopic analysis of plant tissues and organs. 8. Defining procedures related to research, development, production, analysis and quality control of herbal medicines.
Learning Outcomes	

Textbook	Medical Botany: Plants Affecting Human Health, 2nd Edition Walter H. Lewis, Memory P. F. Elvin-Lew Hardcover: 832 pages September 2003
Secondary textbooks and other materials	Coursepack prepared by the instructor.

CONTENT & WEEKLY SCHEDULE

WEEK	Topics
Week 1	Introduction, History,and Terminology (plant morphology).
Week 2	Nomenclature of plants and drugs, important examples
Week 3	Bacteriophyta, Cyanophyta, Phycophyta
Week 4	Mycophyta-Lichenes
Week 5	Pteridophyta , introduction to Spermatophyta
Week 6	Spermatophyta (Gymnospermae)
Week 7	Spermatophyta (Angiosperms): Monocotyledones: Liliaceae-Zingiberiaceae
Week 8	**Midterm exams**
Weeks 9	Angiospermae (Monocotyledones)Orchidaceae
Week 10	Spermatophyta (Angiosperms): Diocotyledones Apetalae & Dialypetalae-sympetalae piperaceae,
Week 11	Dialypetale: Lauraceae + Rosaceae, Ranunculaceae
Week 12	Dialypetale: Rosaceae - Malvacaeae-Rutaceae
Week 13	Sympetale: Solanaceae, Apiaceae
Week 14	Spermatophyta: Dicotyledones: Sympetalae:(Oleaceae, solanaceae, Ericaceae- Solanaceae)
Week 15	Campus plants
Week 16	**Revision and discussion**
	Final Exams

TEACHING - LEARNING APPROACH	The course will consist of two hours of lecture per week. Expository teaching method will be used for the greater part of the course. However, active participation of each student is required during discussions and presentations. The processes and concepts will become the bases for class discussions and for the required project in measurement and evaluation.

REQUIREMENTS FOR SUCCESS

In this course the students should:

- take the mid-term examination and the final examination which will be administered at appropriate times and receive minimum required scores.
- come to class prepared to demonstrate effective participation in class discussions.
- complete any given assignments promtly.
- attend all classes otherwise will receive an NG grade.

TIME SPENT FOR THE COURSE AND ECTS CREDIT CALCULATION

Activity	Number	Time (hour)	Total time (hour)
Lecture time (Including mid-term exam week: 14xperiods per week)	14	2	28
Out of class Study time (14xstudy time per week)	14	1	14
Time spent studying for the quiz	0	0	0
Time spent studying for the midterm exam	1	10	10
Project/workshop/training	1	10	10
Time spent studying for the final exam	1	13	13
Total time spent			75
Total time spent / 25(hours)			3
ECTS Credits			3

METHODS OF ASSESSMENT

Student success will be evaluated as the following:

Type of assessment	Number	Weight (%)	Total (%)
Midterm Exam	1	30	30
Assignments	0	0	0
Quiz	0	0	5
Project	1	10	10
Workshop	0	0	0
Lab	0	0	0
Training	0	0	0
Class participation	0	0	0
			0
Attendance	1	5	5
Final Exam	1	50	50
Grand Total			100

EUROPEAN UNIVERSITY OF LEFKE- "Faculty of Pharmacy"

"Pharmacy"

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR230	Pharmaceutical Microbiology	Theory and Practice	3	0	1	3	6	Thursday 09:00-12:00 / Thursday 13:00-16:00 (Lab)
Prerequisite		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Emrah Güler	Office Hours Schedule	Tuesday 09.00- 14.50
E-mail	eguler@eul.edu.tr		
Phone		Office / Room No	ECZ015
Teaching Assistant(s)		Phone	-
E-mail		Office / Room No	

Course Objectives	Gives the students the sufficient information about the life of microorganisms and its relation with our life. Introduces the students to the application of microbiology in different fields of pharmacy practice. Study of infections and identification of the responsible microbes.
Learning Outcomes	Upon successful completion of this course students will be able to: 1- Identify and recognize the various forms of bacteria and fungi morphologically – hence a selection of illustration with different microbes as regards staining, growth requirements, isolation and cultivation. 2- Demonstrate biochemical reactions and phase of growth of bacteria in various environments. 3- Apply basic knowledge on microbes to develop fully of information available so as to understand infections and contamination of tissue/system and materials respectively. 4- Select microorganisms which show antibiotic activity and fully characterize for further studies and development. 5- Detect such substances either of natural or synthetic sources as antimicrobial agents and to clarify their respective preservative, antiseptics, antibiotics or disinfectant. 6- Identify basic information on fungi, protozoa and helminthes, and virology.
Text Books	1 Jawetz Melnick & Adelbergs, Medical Microbiology 26/E (Lange Medical Books) 26th Edition
	2 Frederick S. Southwick, Infectious Diseases: A Clinical Short Course, 4th Edition

WEEK	Date	TOPICS	Reference No - Section
Week 1	05.02.2026	Introduction to Microbiology	1, 2
Week 2	12.02.2026	Classification of Microorganisms	1, 2
Week 3	19.02.2026	Bactrial Growth and Bacterial Metabolism	1, 2
Week 4	26.02.2026	Bacterial Morphology	1, 2
Week 5	05.03.2026	Host-Pathogen Interactions	1, 2
Week 6	12.03.2026	Quiz	
Week 7	19.03.2026	Sterilization, Disinfection and Antisepsis	1, 2
Week 8	26.03.2026	Antibiotics and Antibiotic Resistance	1, 2
Week 9	02.04.2026	Introduction to Medical Parasitology	1, 2
Week 10	04.04.2026-12.04.2026	Midterm Exam	
Week 11	16.04.2026	General Characteristics of Viruses	1, 2
Week 12	23.04.2026	Holiday	
Week 13	30.04.2026	Virus/Host Relationship	1, 2
Week 14	07.05.2026	Mycology	1, 2
Week 15	13.05.2026	Important Parasitic Infections	1, 2
Week 16	16.05.2026-25.05.2026	Final Exam	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	16.05.2026-25.05.2026	50	50
Semester Evaluation				
Midterm(s)	1	04.04.2026-12.04.2026	40	40.0
Quiz(zes)	1	12.03.2026	10	10.0
Project(s)				
Homework(s)				
Participation				
Presentations				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	42.0	Applied Hours		
Midterm	1	1.0	Final	1	2.0
Midterm Study	1	10.0	Final Study	1	20.0
Quiz	1	7.0	Project		
Laboratory	14	42.0	Homework		
Atelier			Seminar	1	10.0
Field Study	1	10.0	Presentation		
Other	1	8.0	Self Study	14	28.0
			TOTAL :		180.0
			Recommended ECTS Credit (Total Hours / 30) :		6

EUROPEAN UNIVERSITY OF LEFKE- "Faculty of Health Sciences"

"Physiotherapy and Rehabilitation" "Nursing"

SYLLABUS

2025 -2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	P	L	Credits	ECTS	Weekly Time Schedule
HSCC206	PATHOLOGY	Major	2	2	0	3	4	SATURDAY 14:00-15:50

Prerequisite		**Prerequisite to**	
Course Lecturer	Assoc. Prof. Hanife Özkayalar M. D.	**Office Hours Schedule**	**Day** / **Time**
E-mail	hanifedr@gmail.com		
Phone	0533 8643745	**Office / Room No**	
Teaching Assistant(s)		**Phone**	
E-mail		**Office / Room No**	
Course Description			
Course Objectives	This course is designed to enable students to acquire knowledge of pathology of various disease conditions and apply this knowledge in practice.		
Course Learning Style	Presentation, discussion		
Learning Outcomes	After studying this course, students will be able to: Understand the basic concepts of pathology. Understand the pathophysiological changes in different system disorders. Appreciate the deviations from normal to abnormal structure and functions of the body system. Explain pathological changes in disease condition of various system Define the common terms used in pathology and methods of pathology		
Textbooks and/or References	1- ROBBINS &COLTRAN PATHOLOGIC BASIS OF DISEASES 10th edition. 2- LECTURE'S NOTE 3- www.pathologyoutlines.com		

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction to Pathology	2nd reference
Week 2		Methods	2nd reference
Week 3		Cellular injury	t reference, chapter 2 and 2nd referenc
Week 4		Death of cell: Necrosis & apoptosis	t reference, chapter 2 and 2nd referenc
Week 5		Intracellular accumulation & cellular adaptation	1st reference, chapter 2 and 2nd referenc
Week 6		INFLAMMATION: ACUTE	t reference, chapter 3 and 2nd referenc
Week 7		Review	
Week 8		Mid-term exam	
Week 9		INFLAMMATION:CHRONIC	t reference, chapter 3 and 2nd referenc
Week 10		WOUND HEALING: REGENERATION & FIBROZIS	t reference, chapter 3 and 2nd referenc
Week 11		HEMODINAMIC DISORDERS	t reference, chapter 4 and 2nd referenc
Week 12		NEOPLASIA	t reference, chapter 6 and 2nd referenc
Week 13		REVIEW	
Week 14		Final Exam week	
Week 15			
END OF SEMESTER EXAM WEEK			

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Contribution to Mid-Semester Evaluation Grade (%)
Final Exam	1		60	60%
		Semester Evaluation		
Midterm(s)	1		40	0.4
Quiz(zes)				
Project(s)				
Homework(s)				0.0
Laboratory				
Presentation				

*** *Lifelong Learning Programme (LLP)* *** Lang. of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours		Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	28.0		Applied Hours		
Midterm	1	2.0		Final	1	2.0
Quiz				Project		
Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Exam Preparations	5	30.0		Self Study	14	42.0
				TOTAL:		118.0
				Recommended ECTS Credit (Total Hours / 30) :		4

EUROPEAN UNIVERSITY OF LEFKE

Faculty of Pharmacy

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR234	IMMUNOLOGY		3	0	0	3	4	Wednesday 09:00-11:50
Prerequisite		Prerequisite to						

Course Lecturer	Asst Prof Dr Osman Dadaş	Office Hours Schedule	
E-mail	odadas@eul.edu.tr		
Phone		Office / Room No	ECZ020
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This course provides a comprehensive overview of the immune system. The different cell types involved in innate and adaptive immunity, the effector mechanisms employed by the immune cells and how infections are cleared are covered throughout the course. Principles of immunological tolerance, allergy and auto-immune conditions as well as cancer immunity are also studied.
Objectives	The aim of the module is to familiarize the students with the immune system and development of protective immune responses. Details of the innate and adaptive immunity and differences between the two concepts will be covered. Activation, proliferation and effector mechanisms of different immune cell types, generation of immunological memory and principles of vaccination will also be covered. Principles of hypersensitivity reactions, autoimmunity and cancer immunology will also be covered throughout the module.
Learning Outcomes	Upon successful completion of the course, students will be able to: 1. Learn the functional components of the innate and adaptive immunity mechanisms. 2. Understand the requirements of generating a protective immune response. 3. Understand the cellular and molecular mechanisms involved in immune responses against pathogens and self-antigens. 4. Understand the concepts of vaccination and protective immunological memory. 5. Understand the concepts of hypersensitivity reactions, immunological tolerance, auto-immunity and allergy. 6. Understand the principles of cancer immunity.
Programme Outcome Relations	PO1: LO1-6:4 PO8:LO6: 2 PO2: LO4:3 PO3: LO1,6:3 PO11: LO1-6:3 PO4: LO4:4 PO5: LO1-6:3
	(1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

Textbooks and/or References		
	1	Abbas, A. K., Lichtman, A. H. & Pillai S. Cellular and Molecular Immunology. 9th Edition.
	2	Lecture notes
	3	

WEEK	Date	TOPICS	Reference No - Section
Week 1	04.02.2026	Introduction to the course	1,2
Week 2	11.02.2026	Overview of the immune system	1,2
Week 3	18.02.2026	Innate immunity	1,2
Week 4	25.02.2026	B cells and antibodies	1,2
Week 5	04.03.2026	Antigen processing and presentation	1,2
Week 6	11.03.2026	T cell development and activation	1,2
Week 7	18.03.2026	T cell differentiation and effector functions	1,2
Week 8	25.03.2026	CD8+ T cell and Natural Killer cell differentiation and effector functions	1,2
Week 9	01.04.2026	Immunological tolerance and autoimmunity	1,2
Week 10	04-12.04.2026	Midterm Exam	
Week 11	15.04.2026	National Holiday	
Week 12	22.04.2026	Immunological memory and vaccination	1,2
Week 13	29.04.2026	Hypersensitivity and allergic reactions	1,2
Week 14	06.05.2026	Cancer immunology	1,2
Week 15	13.05.2026	Revision	
Week 15-16	16-25.05.2026	Final Exam	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	
	Semester Evaluation				
	Midterm(s)	1		40	
	Quiz(zes)				
	Project(s)				
	Homework				
	Assignements/case studies				
	Attendance				

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study			Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Assignements/case studies			Tutorial		
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1	26	FE preparation self study	1	50
				TOTAL :	120
				Recommended ECTS Credit (Total Hours / 30) :	4.00

EUROPEAN UNIVERSITY OF LEFKE- "Faculty of Pharmacy"

"Pharmacy"

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR236	Analytical Chemistry II	Compulsory	2		3	4		Monday, 11:00-13:00
Prerequisite	-	Prerequisite to				-		

Course Lecturer	Saltuk Pirgalıoğlu	Office Hours Schedule	open door policy questions can be asked through teams any time. Answers will be provided within a workday
E-mail	spirgalioglu@eul.edu.tr		
Phone	2515	Office / Room No	AS307
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-

Course Objectives

This course aims to provide the students a background in principles and theories of analytical chemistry. Students will acquire the knowledge on application of basic quantitative analysis techniques in analytical chemistry; electrochemical methods, spectrochemical analysis and kinetics and separations will be discussed.

Learning Outcomes

On successful completion of the course, the student will:
1. be able to identify type of errors in analytical chemistry and carry out statistical analysis on measured data and calibration data
2. learn potentiometry and voltametry
3. know different spectrochemical analysis techniques; especially UV-Vis spectrophotometry, infrared spectrophotometer
4. learn basic principles of atomic spectroscopy
5. know basic principles of mass spectroscopy
6. learn basics of chromatography; especially HPLC and GC

Textbooks and/or References

1	Skoog, D.A., West, D. M., Holler, F. J., Crouch, S. R. (2014) *Fundamentals of Analytcical Chemistry.* Ninth edition. Cengage Learning
2	Stig Pedersen-Bjergaard, Bente Gammelgaard, Trine Grønhaug Halvorsen (2019), Introduction to Pharmaceutical Analytical Chemistry, 2nd edition, Jown Wiley &Sons
3	
4	

WEEK	Date	TOPICS	Reference No - Section
Week 1	02/02/2026	Introduction and review	1-ch3, ch4
Week 2	09/02/2026	Errors, Random errors, Statistical data treatment	1-ch5 - ch7
Week 3	16/02/2026	Sampling, Standardization and Calibration	1- ch 8
Week 4	23/02/2026	Sampling, Standardization and Calibration	1- ch 8
Week 5	02/03/2026	Introduction to Electrochemistry and applications of standard electron potentials	1- ch18, 19
Week 6	09/03/2026	Potentiometry and Voltammetry	1- ch21-ch23
Week 7	16/03/2026	Spectrochemical analysis, Instruments for optical spectrometry	1-ch24- ch25
Week 8	23/03/2026	Introduction to Molecular absorption/flouresence spectroscopy	1-ch26 ch27
Week 9	30/03/2026	REVIEW	
Week 10	06/04/2026	MIDTERM	
Week 11	13/04/2026	Atomic spectroscopy	1- ch28
Week 12	20/04/2026	Mass spectrometry	1- ch29
Week 13	27/04/2026	Kinetic methods of analysis	1- ch30
Week 14	04/05/2026	Gas chromatography	1- ch32
Week 15	11/05/2026	Liquid chromatography	1-ch33
Week 16	16/5/2026-25/5/2026	Final Examination	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	6/01/2024-6/12/2024	40	
Semester Evaluation				
Midterm(s)	1	3/30/2024-4/7/2024	30	50.0
Quiz(zes)	0			0.0
Project(s)	0			0.0
Homework(s)	0			0.0
Laboratory	10		30	50.0
Other	0			0.0

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	42.0	Applied Hours		
Midterm	1	2.0	Final	1	3.0
Quiz			Project		
Laboratory	10	20.0	Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study	15	52.0

TOTAL :		119.0
Recommended ECTS Credit (Total Hours / 30) :		4

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2023-2024 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR310	Pharamcognosy II		3	0	0	3		Monday: 12:00-13:50
		Prerequisite to						

Course Lecturer	Assist.Prof.Dr.Najat Agiel	Office Hours Schedule	Monday:9:00-10:00 Tuesday:10:00-12:00 Wednesday:9:00-10:00
E-mail	nagiel@eul.edu.tr		
Phone		Office / Room No	2595
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-

Course Objectives	Pharmacognosy provides information about pharmacopoeia and related drugs of biological origin. PharmacognosyII introduces students to botanical and chemical properties and therapeutically uses of plant originated crude drugs which contain volitile oils . This course focuses on the identification methods, of volitile oils and their related herbal sources, chemical classification and biosynthesis .This course also includes the evaluation of herbal drugs according to pharmacopoeia standards.
Learning Outcomes	Based on the overall objective, students are expected to achieve the following learning outcomes at the end of the course: Identify drug with essential oils as active principles from natural origin and their supply, cultivation, collection, storage along with their special conditions. Identify the different classification of volitile oils . Identify the different biosynthetic origin of volitile oils . Apply the methods for the quality control and confirmity tests ofvolitile containing plant species. Apply the tests for the alkoids voilitile oils Pharmacopoeial evalution of herbal drugs containing volitile oils.
Textbooks and/or References	Treas and Evans' Pharmacognosy by William Charles Evans, ISBN: 9780702029332, Publication Date 2009

WEEK	Date	TOPICS	Reference No - Section
Week 1	19.02.24	Introduction to volitile oils	
Week 2	26.02.24	Volatile oils containing acyclic monoterpenes as active constituents	
Week 3	04. 03.24	Volatile oils containing monocyclic monoterpenes as active constituents	
Week 4	11. 03.24	Volatile oils containing bicyclic monoterpenes as active constituents	
Week 5	18. 03.24	Volatile oils containing aromatic monoterpenes as active constituents I	
Week 6	25. 03..24	Discussion and Revision	
Week 7		Midterm(s)	
Week 8	08.04.24	Volatile oils containing aromatic monoterpenes as active constituents II	
Week 9	15.04.24	volatile oils containing sesquiterpenes as active constituens II	
Week 10	22.04.24	volatile oils containing sesquiterpenes as active constituens II	
Week 11	29.04.24	Volatile oils containing phenilpropanoid derivatives as active constituents I	
Week 12	06. 05.24	Volatile oils containing phenilpropanoid derivatives as active constituents II	
Week 13	13. 05.24	Sesquiterpenoid lactones I	
Week 14	20. 05.24	Diterpenes	
Week 15	27. 05.24	Discussion and Revision	
Week 16		final exams	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		50	
	Semester Evaluation				
	Midterm(s)	1		20	
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory			30	#DIV/0!
	Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		

Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Other				Self Study		
				TOTAL :		
				Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
Phar 212	Pharmaceutical Technology II							
		Prerequisite to						

Course Lecturer	Assist. Prof. Musaab SAADA	Office Hours Schedule	
Phone	5488892824	Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail		Office / Room No	-

Course Objectives	Explore the principles of suspensions in pharmaceutical formulations and evaluate their role in drug delivery. Differentiate between emulsions and creams, investigating manufacturing and processing techniques. Examine factors affecting the stability of emulsions and creams and develop strategies for enhancement. Understand the characteristics and applications of ointments in pharmaceutical practice, evaluating influencing factors. Examine the properties and applications of gels and emulgels, exploring formulation considerations. Explore manufacturing processes for topical semisolid preparations on both small and large scales. Investigate the principles and applications of drug delivery via the rectal route, analyzing advantages and challenges. Understand the unique aspects of drug delivery through the vaginal route, evaluating formulation considerations and applications.
Learning Outcomes	Upon successful completion of this course, students will be able to: Apply principles of suspensions in designing pharmaceutical formulations. Differentiate between emulsions and creams, applying manufacturing and processing techniques. Evaluate factors affecting the stability of emulsions and creams, proposing strategies for enhancement. Understand the characteristics and applications of ointments, analyzing factors influencing their formulation and performance. Examine the properties and applications of gels and emulgels, formulating these preparations effectively. Demonstrate knowledge of both small-scale and large-scale manufacturing processes for topical semisolid preparations. Analyze the principles, advantages, and challenges associated with rectal drug delivery. Understand the unique aspects of vaginal drug delivery and apply formulation considerations for effective delivery through this route.
Textbooks and/or References	

WEEK	Date	TOPICS	Reference No - Section
Week 1		INTRODUCTION	
Week 2		SUSPENSIONS	
Week 3		EMULSIONS AND CREAMS	
Week 4		EMULSIONS AND CREAMS	
Week 5		MANUFACTURE AND PROCESSING OF EMULSIONS AND CREAMS	
Week 6		STABILITY	
Week 7		Holiday	
Week 8		Midterm Exam	
Week 9		OINTMENTS	
Week 10		GELS AND EMULGELS	
Week 11		SMALL-SCALE and LARGE-SCALE MANUFACTURING of TOPICAL SEMISOLID PREPARATIONS	
Week 12		RECTAL DRUG DELIVERY	
Week 13		VAGINAL DRUG DELIVERY	
Week 14		Holıday	
Week 15		Final Exam	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1	May 27, 2019		50.00%
	Semester Evaluation				
	Midterm(s)	1	April 15, 2019		20.00%
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory				30.00%
	Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours		Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours				Applied Hours		
Midterm				Final		
Quiz				Project		

Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Other				Self Study		
				TOTAL :		
				Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

"FACULTY OF PHARMACY"

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR 334	Pharmaceutical Chemistry II		3	3		4.5		Wednesday 09:00-12:00 Wednesday 12:00-15:00
		Prerequisite to						

Course Lecturer	Assist. Prof. Dr. Mohammed T. Qaoud	Office Hours Schedule	
E-mail			
Phone	5248599180	Office / Room No	-
Teaching Assistant(s)	-	Phone	-
E-mail	Mqaoud@ciu.edu.tr	Office / Room No	-

Course Objectives	To provide students with a medicinal chemistry–oriented understanding of major antihypertensive and antihyperlipidemic drug classes, emphasizing structure–activity relationships (SAR), mechanisms of action, and the influence of acidity, basicity, and physicochemical properties on drug behavior.
Learning Outcomes	By the end of this course, students will be able to describe the key structural features and mechanisms of representative antihypertensive and antihyperlipidemic agents, apply SAR principles to interpret drug activity, and explain how acidity, basicity, and physicochemical characteristics affect pharmacological performance. Students will also be able to compare drug classes and rationalize the impact of molecular modifications on drug action.
Textbooks and/or References	*Foye's Principles of Medicinal Chemistry-Lippincott Williams & Wilkins (2012)*

WEEK	Date	TOPICS	Reference No - Section
Week 1		Introduction to Pharmaceutical Chemistry II & Review of Medicinal Chemistry Principles	
Week 2		Acidity and Basicity in Drug Molecules	
Week 3		Structure–Activity Relationships (SAR): Fundamental Concepts	
Week 4		Diuretics I: Classification, Mechanisms, and Chemical Features	
Week 5		Physicochemical Properties and Drug Action	
Week 6		Diuretics II: SAR and Clinical Relevance	
Week 7		ACE Inhibitors I: Mechanisms and Structural Characteristics	
Week 8		Midterm(s)	
Week 9		ACE Inhibitors II: SAR and Optimization Strategies	
Week 10		ICalcium Channel Blockers I: Classes and Mechanisms of Action	
Week 11		Calcium Channel Blockers II: SAR and Pharmacological Profiles	
Week 12		Introduction, SAR, Classes, and chemical preperties of Antihyperlipidemic Drugs	
Week 13		Introduction, SAR, Classes and Chemical Properties of NSAIDs Agents	
Week 14		Integrated Review: Linking Structure, Properties, and Therapeutic Activity	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	00/03/2026	50	
Semester Evaluation				
Midterm(s)	1	8/4/2026	20	
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory			30	#DIV/0!
Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study		
			TOTAL :		
			Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE

Faculty of Pharmacy

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR 330	Pharmaceutical Toxicology	Compulsory	3	0	3	3	4	
Prerequisite		Prerequisite to						

Course Lecturer	Dr. Yazan Awad	Office Hours Schedule	
E-mail	yawad@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	Pharmaceutical Toxicology introduces students to the principles of toxicology, focusing on the adverse effects of drugs, chemicals, and environmental agents on human health. The course emphasizes mechanisms of toxicity, risk assessment, antidotal therapy, and regulatory frameworks. Students will analyze case studies, present projects, and engage in discussions to apply toxicological knowledge to pharmacy practice.
Objectives	This course aims to provide students with foundational knowledge of toxicological principles as they relate to pharmaceuticals, while training them to identify, assess, and manage toxic exposures effectively. It further develops critical skills in case analysis, clear communication, and professional presentation of toxicology-related issues, all while integrating toxicology concepts into real-world clinical pharmacy practice and aligning with current regulatory standards to
Learning Outcomes	LO1 Explain the fundamental principles of toxicology, including mechanisms of toxicity, dose–response relationships, and toxicokinetics. LO2 Analyze the clinical features, diagnosis, and management of acute and chronic intoxication cases, including appropriate antidotal therapies. LO3 Apply emergency response protocols and evidence-based treatment strategies in poisoning and toxic exposure scenarios. LO4 Evaluate laboratory findings and toxicological data to support clinical decision-making in intoxication management. LO5 Integrate toxicological principles, pharmacotherapy, and regulatory guidelines to develop comprehensive and safe poisoning control strategies. LO6 Demonstrate effective communication and professional judgment in high-pressure clinical and emergency toxicology settings.

Programme Outcome Relations			
	P1 4 P2 4 P3 5 P4 5 P5 5 P6 4	P7 3 P8 4 P9 4 P10 5 P11 5 P12 5	(1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree

Textbooks and/or References		
	1	Casarett & Doull's Toxicology: The Basic Science of Poisons (9th ed.)
	2	Olson, K. R. (2021). Poisoning & Drug Overdose (7th ed.). McGraw-Hill Education.
	3	

WEEK	Date	TOPICS	Reference No - Section
Week 1	02–06/02/26	Introduction to Toxicology	1
Week 2	09–13/02/26	History of Toxicology	1
Week 3	16–20/02/26	Basic Concept of Toxicology: Dose-rospnse relation-ship and Exposure	1
Week 4	23–27/02/26	Basic Concept of Toxicology: Toxicokinetics	1
Week 5	02–06/03/26	Carcinogenicity & Mutagenicity	1
Week 6	09–13/03/26	Developmental Toxicology	1
Week 7	16–20/03/26	Target Organ Toxicity	1
Week 8	23–27/03/26	Risk Assessment & Safety Evaluation	1
Week 9	30/03–03/04/26	Revision & Discussion	1
Week 10	**04–12/04/26**	**Midterm Exam**	
Week 11	13–17/04/26	Antidotes	1,2
Week 12	20–24/04/26	Chelating agents and Heavy Metal Toxicity	1,2
Week 13	27/04–01/05/26	Clinical Toxicology II	1,2
Week 14	04–08/05/26	Clinical Toxicology II	1,2
Week 15	11–15/05/26	Revision & Discussion	1,2
Week 15-16	16–25/05/26	**Final Exam**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	04–12/04/26	50	
Semester Evaluation			50	
Midterm(s)	1	16–25/05/26	30	
Quiz(zes)				
Project(s)				
Laboratory (L)			20	
Case Studies & Role-Play				
Attendance				

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	42	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)	12	36	Case Studies & Role-Play		
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1		FE preparation self study		1
				TOTAL :	123
				Recommended ECTS Credit (Total Hours / 30) :	4.10

EUROPEAN UNIVERSITY OF LEFKE

"Faculty of Pharmacy"

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR433	Pharmacology II	Compulsory	3	0	0	3		
Prerequisite		Prerequisite to						

Course Lecturer	Dr. Ayşe Gökyiğit	Office Hours Schedule	Tuesday 14.00-16.50
E-mail	agokyigit@eul.edu.tr		
Phone	90 392 660 2000-0533 860 9994	Office / Room No	
Teaching Assistant		Phone	3590
E-mail		Office / Room No	

Catalogue Objectives	This course is based on understanding the main concepts of the autocoids pharmacology, immuno pharmacology , endocrine pharmacology and pharmacology of the respiratory system
Learning Outcomes	The general outcome goals are that students will; explain - Autocoids and their role in various conditions , immunopharmacology -diseases and treatment involved in immun system, analgesic and antipyretic drugs , pharmacology of most common chronic endocrin disease (Diabetes Mellitus), and pharmacology of the respiratory system.

Textbooks and/or References		
	1	Rang and Dale's Pharmacology. H.P. Rang, M.M. Dale, J.M. Ritter, R.J. Flower. 6th edition.
	2	Goodman and Gillman's-The Pharmacological Basis of Therapeutics
	3	Katzung and Trevor- Basic & Clinical Pharmacology-13th e

WEEK	Date	TOPICS	Reference No - Section
Week 1	2/6/2026	Autocoids and Their Classification	1.2.3
Week 2	2/10/2026	Histamine and Serotonin	1.2.3
Week 3	2/17/2026	Nitric Oxide and Adenosine	1.2.3
Week 4	2/24/2026	Eicosanoids	1.2.3
Week 5	3/3/2026	Cytokines	1.2.3
Week 6	3/10/2026	Vasoactive Peptides	
Week 7	3/17/2026	NSAIDs	
Week 8	3/24/2027	**Gout**	
Week 9	3/31/2026	Revision	1.2.3
Week 10	4/7/2026	Midterm Exam Week	1.2.3
Week 11	4/14/2026	Oral Antidiabetics	1.2.3
Week 12	4/21/2026	Insulin	1.2.3
Week 13	4/28/2026	Bronchodilators	
Week 14	5/4/2026	Antitussives & Expectorants	1.2.3
Week 15	5/11/2026	Revision	
Week 16	5/18/2026	Final Exam	

Evaluation Tools	Final Exam Week			Weight in Semester Evaluation (%)
	Evaluation Tool	Quantity	Date	Weight in Total (%)
	Final Exam	1	18.04.2026	60
	Semester Evaluation			#DIV/0!
	Midterm(s)	1	07.04.2026	40
	Quiz(zes)			
	Project(s)			
	Homework			
	Laboratory works			
*** Lifelong Learning	Attendance			English

Evaluation Tool		Student Workload Hours	Language of Instruction:		Student Workload Hours
Theoretical lecturing hours (TLH)	Quantity		Evaluation Tool	Quantity	
TLH self study					
Quiz (Q)					
Q preparation self study					
Laboratory (L)					
L preparation work					
Midterm exam (ME)					
ME preparation self study					
TOTAL :					0
Recommended ECTS Credit (Total					0.00

EUROPEAN UNIVERSITY OF LEFKE

Faculty of Pharmacy

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR338	PHARMACOECONOMICS	Compulsory	3	0	3	3	6	Friday 13:00 - 15:50 ECZ006
Prerequisite	None					None		

Course Lecturer	Asst. Pof. Dr. Tahir Yesilada	**Office Hours**	Tuesday, 10:00 - 12:00
E-mail	tyesilada@eul.edu.tr		
Phone	3600	**Office / Room No**	Faculty of Economics and Administrative Sciences, Room 5
Catalogue Description	This course introduces students to the key concept and topic of microeconomics such as opportunity cost, production possibility frontier, demand and supply, elasticity, utility, preferences, production, costs, perfect competition, monopoly.		
Course Objectives	This course introduces students to the key concept and topic of microeconomics such as opportunity cost, production possibility frontier, demand and supply, elasticity, utility, preferences, production, costs, perfect competition, monopoly.		
Learning Outcomes	On successful completion of this course, all students will have developed knowledge and understanding of: 1. Explain the fundamental principles and methodologies of pharmacoeconomic evaluation, including cost-minimization, cost-effectiveness, cost-utility, and cost-benefit analyses. 2. Analyze healthcare costs from different perspectives (patient, provider, payer, and societal) and evaluate their impact on decision-making. 3. Interpret pharmacoeconomic data and health outcomes to support evidence-based resource allocation in healthcare systems. 4. Apply economic evaluation tools to compare alternative drug therapies and justify optimal treatment strategies based on clinical and economic outcomes. 5. Evaluate the role of pharmacoeconomics in policy development, reimbursement decisions, and sustainable healthcare management.		

Programme Outcome Relations

	P1	P2	P3	P4	PO5	P6	P7	P8	P9	P10	P11	P12
LO1	3	3	4	3	5	4	4		3	4	3	4
LO2	3		5	3	5	4	5		4	4		5
LO3	3		5	4	5	4	5		4	4		5
LO4	3	3	5	4	5	4	4		4	4		5
LO5	3	4	4	4	4	4	5		5	5		4

(1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

Textbooks and/or References

1	Foundations of economics, Robin Bade, Michael Parkin, 8th edition, 2016, Pearson Higher Education.
2	Lecture notes
3	Essentials of pharmacoeconomics, Karen L. Rascati, 2nd edition, 2014, Wolters Kluwer.

WEEK	Date	TOPICS	Reference No (1) - Section
Week 1	6.02.2026	Getting started + The U.S. and Global Economies	Ch.1 + Ch.2
Week 2	13.02.2026	The Economic Problem + Demand and supply	Ch.3 + Ch.4
Week 3	20.02.2026	Elasticities of Demand and supply	Ch.5
Week 4	27.02.2026	Global markets in Action	Ch.8
Week 5	6.03.2026	Production and Cost	Ch.10
Week 6	13.03.2026	Perfect competition	Ch.11
Week 7	20.03.2026	Religious Holiday	
Week 8	04-12/04/2026	Midterm Exam Week	
Week 9	3.04.2026	Monopolistic Competition and Oligopoly	Ch.13
Week 10	10.04.2026	GDP: A measure of Total Production and Efficiency	Ch.4
Week 11	17.04.2026	Government Actions in Markets: A housing market with a rent ceiling-A labour market with a minimum wage	Ch.6
Week 12	24.04.2026	Monopoly and Oligopoly	Ch.13 and Ch.15
Week 13	1.05.2026	Spring Day (Holiday)	
Week 14	8.05.2026	Introduction to Pharmacoeconomics + History of Pharmacoeconomics	Lecture notes
Week 15	15.05.2026	Methods of Pharmacoeconomic Evaluation	Lectures notes
Week 16	16-25/05/2026	Final Exams	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	16-25/05/2026	50	50
Midterm Exam	1	04-12/04/2026	40	40
Attendance and class participation	1	TBA	10	10

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	42.0	Applied Hours		
Midterm	1	1.0	Final	1	1.0
Quiz/Assignmment			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study	42	126.0
			TOTAL :	58	170.0

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2024-2025 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours			Credits	ECTS	Weekly Time Schedule
			T	A	L			
PHAR430	Pharmacotherapy		3	0	0	3		Monday: 10.00-12.50
		Prerequisite to						

Course Lecturer	Dr. Ayse Gokyigit	Office Hours Schedule	
E-mail	a.gokyigit@yahoo.com		
Phone	0533 860 9994	Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-

Course Objectives	By the end of this course, students will be able to: Understand pharmacotherapy principles. Explain the role of clinical pharmacists in rational drug use. Describe clinical pharmacists' responsibilities in patient care, especially in pediatrics and in the elderly. Apply a systematic approach to solve drug-related problems and common toxidromes. Apply clinical pharmacy principles to diverse case studies, including metabolic diseases, neurological diseases, gastrointestinal diseases, chemotherapy and resistance development. Explain the proper use of pharmaceutical dosage forms.
Learning Outcomes	Have a knowledge of basic concepts of pharmacotherapy. Explain the specific roles and responsibilities of clinical pharmacists in patient care, especially in pediatrics and in the elderly. Apply clinical pharmacy principles effectively in solving case studies covering a range of diseases and conditions, such as metabolic diseases, neurological diseases, gastrointestinal diseases and also dealing with common toxidromes. Besides, knowledge of cancer treatment and dealing with the therapy failure in infectious diseases.
Textbooks and/or References	1. Applied Therapeutics The Clinical Use of Drugs 11e, DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 12th Edition, 2. Pharmacotherapy Handbook 10 th Edition Barbara G.Wells, Terry L.Schwinghammer, Joseph T. DiPiro, Cecily V.DiPiro

WEEK		TOPICS	Reference No - Section
Week 1	13/02/2025	Introduction to Pharmacotherapy	
Week 2	20/02/2025	Clinical Toxicology	
Week 3	27/02/2025	Pediatric Pharmacotherapy	
Week 4	6/3/2025	Geriatric Pharmacotherapy	
Week 5	13/03/2025	Obesity	
Week 6	20/03/25	Pain Management	
Week 7	27/03/2025	Nausea and Vomiting	
Week 8	3/4/2025	Diarrhea	
Week 9	10/4/2025	Review (First 5 weeks)	
Week 10	17/04/2025	Midterm Exam	
Week 11	24/04/2025	Constipation	
Week 12	8/5/2025	Antineoplastic Chemotherapeutics	
Week 13	15/05/2025	Resistance Development and Other Reasons of Therapy Failure in infectious Diseases	
Week 14	21/05/2025	Review (Last 6 weeks)	
Week 15	29/05/2025	Final Exam	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	
	Semester Evaluation				
	Midterm(s)	1		40	
	Quiz(zes)				

	Project(s)				
	Homework(s)				
	Laboratory				
	other /active join				

**** Lifelong Learning Programme (LLP) ****	Language of Instruction:

Evaluation Tool	**Quantity**	**Student Workload Hours**		**Evaluation Tool**	**Quantity**	**Student Workload Hours**
Theoretical Hours	3			Applied Hours		
Midterm				Final		
Quiz				Project		
Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Other				Self Study		
				TOTAL :		
				Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
Phar 212	Pharmaceutical Technology IV							
		Prerequisite to						

Course Lecturer	Assist. Prof. Musaab SAADA	Office Hours Schedule	
Phone	5488892824	Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail		Office / Room No	-

Course Objectives	Explore the properties and characteristics of powders and granules in pharmaceutical formulations, understanding their role in drug manufacturing processes. Gain proficiency in analyzing and characterizing particle sizes in pharmaceutical materials and understand the significance of particle size in drug formulation. Examine methods of particle size reduction and size separation in pharmaceutical processes, applying principles to achieve desired particle sizes for specific dosage forms. Understand the principles of mixing in pharmaceutical formulations and evaluate powder flow properties and their impact on manufacturing processes. Explore dosage forms that utilize powdered and granulated products, analyzing the advantages and challenges associated with these dosage forms. Investigate the technology involved in the production of pharmaceutical granules, understanding the factors influencing granule characteristics and their impact on the final dosage form. Examine the manufacturing and formulation considerations for hard capsules, understanding the advantages and limitations of hard capsules as a dosage form. Explore the technology and formulation considerations for soft capsules, analyzing the advantages and challenges associated with soft capsules. Understand the compaction process in tablet manufacturing, evaluating the factors influencing tablet quality and performance. Examine the coating techniques used in tablet and multi-particulate formulations, analyzing the role of coatings in enhancing drug release and stability. Explore the principles and technologies involved in modified-release oral drug formulations, understanding the advantages and applications of modified-release dosage forms.
Learning Outcomes	Upon successful completion of this course, students will be able to: Apply knowledge of powders and granules in designing pharmaceutical formulations. Proficiently analyze and characterize particle sizes in pharmaceutical materials. Apply methods of particle size reduction and size separation for specific dosage forms. Demonstrate understanding of mixing principles and evaluate powder flow properties. Analyze the advantages and challenges associated with dosage forms using powdered and granulated products. Understand the technology and factors influencing granule production in pharmaceutical manufacturing. Evaluate the manufacturing and formulation considerations for hard and soft capsules. Understand the compaction process in tablet manufacturing and assess factors influencing tablet quality. Analyze coating techniques for tablets and multi-particulates and their impact on drug release. Demonstrate knowledge of the principles and applications of modified-release oral drug delivery.
Textbooks and/or References	

WEEK	Date	TOPICS	Reference No - Section
Week 1		INTRODUCTION TO POWDERS AND GRANULES	
Week 2		PARTICLE SIZE ANALYSIS	
Week 3		PARTICLE SIZE REDUCTION AND SIZE SEPARATION	
Week 4		MIXING AND POWDER FLOW	
Week 5		POWDERED AND GRANULATED PRODUCTS AS DOSAGE FORM	
Week 6		PHARMACEUTICAL TECHNOLOGY OF GRANULE PRODUCTION	
Week 7		Holiday	
Week 8		Midterm Exam	
Week 9		HARD CAPSULES	
Week 10		SOFT CAPSULES	
Week 11		TABLETS AND COMPACTION	
Week 12		COATING OF TABLETS AND MULTI PARTICULATES	
Week 13		MODIFIED-RELEASE ORAL DRUG DELIVERY	
Week 14		Holiday	
Week 15		Final Exam	

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1			50.00%
Semester Evaluation				

Evaluation Tools	**Midterm(s)**	**1**			**20.00%**
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory				**30.00%**
	Other				

**** Lifelong Learning Programme (LLP) ****			Language of Instruction:		
Evaluation Tool	**Quantity**	**Student Workload Hours**	**Evaluation Tool**	**Quantity**	**Student Workload Hours**
Theoretical Hours			Applied Hours		
Midterm			Final		
Quiz			Project		
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study		
			TOTAL :		
			Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS
PHAR 3XX	**Pharmacy Administration and Accountancy**	Compulsory	3	0	0		
	-	**Prerequisite to**					

Course Lecturer	**Assist. Prof. Musaab SAADA**	**Office Hours Schedule**	
Phone	**-**	**Office / Room No**	
Teaching Assistant(s)	-	**Phone**	-
E-mail	mus3bmds@gmail.com	**Office / Room No**	-

Course Objectives	Introduce the foundations of pharmacy administration and the practical responsibilities of p managers. Develop students' ability to analyze pharmacy workflow, operational bottlenecks, interrupt medication-use risks using tools such as Root Cause Analysis (RCA). Build competency in accounting basics for pharmacy settings, including cash vs accrual acco accounting equation, and common pharmacy transactions. Enable students to interpret financial statements and pharmacy-relevant performance ratic managerial decisions. Apply costing, contribution margin, and break-even analysis to evaluate the feasibility of ph Strengthen budgeting, forecasting, inventory control, reimbursement, and revenue-cycle m in pharmacy practice.
Learning Outcomes	Upon successful completion of this course, students will be able to: Explain the scope and responsibilities of pharmacy administration in community, hospital, and insti Map pharmacy workflows, identify operational risks, and propose practical controls to improve safe Record and classify basic pharmacy transactions using foundational accounting concepts. Interpret income statements, balance sheets, and cash flow statements in a pharmacy context. Calculate and evaluate key financial ratios, contribution margin, and break-even points for pharmac Prepare simple budgets and forecasts and interpret variances for management action. Apply inventory-management and reimbursement principles to improve financial and operational p Use financial reasoning to support investment, business-planning, governance, and compliance dec
Textbooks and/or	Primary course design source: Topics we will cover across the semester.docx 1. Desselle SP, Zgarrick DP, Alston GL. Pharmacy Management: Essentials for All Practice Settings.

and/or References	2. Financial statement examples, pharmacy operations case studies, and instructor handouts. 3. Additional readings on budgeting, reimbursement, inventory control, and governance provided during

WEEK	Date	TOPICS
Week 1		Pharmacy administration foundations: scope, stakeholders, resources, and the manager's role
Week 2		Operations management I: workflow mapping, bottlenecks, interruptions, and error risk
Week 3		Operations management II: Root Cause Analysis (RCA) and practical risk controls
Week 4		Accounting basics I: cash vs accrual accounting and the accounting equation
Week 5		Accounting basics II: common pharmacy transactions; profit versus cash
Week 6		Financial statements and key pharmacy-focused ratios
Week 7		Costing and break-even analysis for pharmacy services
Week 8		Midterm Exam
Week 9		Budgeting, forecasting, and variance interpretation
Week 10		Inventory management: turnover, days on hand, ABC analysis, expiry, and shrinkage control
Week 11		Revenue cycle and reimbursement: denials, AR aging, reconciliation, and dashboards
Week 12		Financial decision-making: working capital, payback, NPV concepts, and sensitivity thinking
Week 13		Business planning and governance: pro-forma logic, policies, controls, and audit readiness
Week 14		Course review, integrated case discussions, and student presentations
Week 15		Final Exam

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)
Final Exam	1		50.00%
Semester Evaluation			50.00%
Midterm(s)	1		20.00%
Quiz(zes)	2		10.00%
Project(s)	1		10.00%
Homework(s)	4		10.00%

	Laboratory	-	-
	Other	-	-

*** *Lifelong Learning Programme (LLP)* ***	Language of Instruction:

Evaluation Tool	**Quantity**	**Student Workload Hours**		**Evaluation Tool**	**Quantity**
Theoretical Hours				Applied Hours	
Midterm	1	15.0		Final	1
Quiz	2	6.0		Project	1
Laboratory	-	-		Homework	4
Atelier	-	-		Seminar	-
Field Study	-	-		Presentation	1
Other	-	-		Self Study	1
				TOTAL :	21
				Recommended ECTS Credit (Total Hours / 25) :	

Weekly Time Schedule

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Reference No - Section	Weight in Semester Evaluation (%)
Source: uploaded semester topics file	**50.00%**
Source: uploaded semester topics file	100%
Source: uploaded semester topics file	**40.00%**
Source: uploaded semester topics file	20.00%
Source: uploaded semester topics file	20.00%
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Student Workload Hours
25.0
12.0
12.0
-
5.0
40.0
94.0
5

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2023-2024 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours			Credits	ECTS	Weekly Time Schedule
			T	A	L			
PHAR432	Cosmetics Science							
		Prerequisite to						

Course Lecturer	Assist. Prof. Musaab SAADA	Office Hours Schedule	
Phone	5488892824	Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail		Office / Room No	-

Course Objectives	Provide an overview of the fundamental concepts and principles in cosmetics science, exploring its interdisciplinary nature and applications. Understand the regulatory framework governing the cosmetics industry and analyze compliance requirements and standards for cosmetic products. Identify and evaluate raw materials commonly used in cosmetic formulations, examining sourcing, quality, and safety considerations. Explore the fundamental principles and techniques involved in formulating and preparing cosmetic products, understanding the role of various ingredients and their interactions. Examine the formulation and application of cosmetic products designed for skin care, considering specific considerations for different skin types and conditions. Understand the formulation principles behind products designed for shaving and explore considerations for achieving effective and comfortable shaving experiences. Explore the formulation and science behind skin lightening products, analyzing ingredients and mechanisms involved in achieving skin tone balance. Investigate the principles of sunscreen formulations and their role in sun protection, understanding the science behind UV filters and their effectiveness. Examine the formulation and application of cosmetic products designed for hair care, considering various hair types and conditions. Understand the formulation principles behind cosmetic products for nail care and enhancement, exploring the science behind nail polishes, treatments, and other nail products. Investigate the formulation and science behind antiperspirant and deodorant products, analyzing the mechanisms of odor control and sweat reduction.
Learning Outcomes	Upon successful completion of this course, students will be able to: Demonstrate a comprehensive understanding of the fundamental concepts and interdisciplinary nature of cosmetics science. Interpret and apply cosmetic legislation, ensuring compliance with regulatory standards. Identify, evaluate, and select raw materials for cosmetic formulations based on sourcing, quality, and safety considerations. Apply principles and techniques in the preparation of various cosmetic products, considering the role of ingredients and their interactions. Formulate and analyze skin preparations tailored to different skin types and conditions. Understand the formulation principles and considerations for effective shaving preparations. Formulate and analyze skin lightening products, considering ingredients and mechanisms. Understand the principles of sunscreen formulations and their effectiveness in sun protection. Formulate and analyze cosmetic products for hair care, considering different hair types and conditions. Formulate and analyze cosmetic products for nail care and enhancement, understanding the science behind nail products.
Textbooks and/or References	

WEEK	Date	TOPICS	Reference No - Section
Week 1		INTRODUCTION	
Week 2		Cosmetic legislation	
Week 3		Raw materials	
Week 4		PRINCIPLES IN THE PREPARATION COSMETIC	
Week 5		Skin preparations	
Week 6		Shaving preparations	
Week 7		Review	
Week 8		Midterm Exam	
Week 9		Skin lightening preparations	
Week 10		SUNSCREENS	
Week 11		HAIR PRODUCTS	
Week 12		NAIL PRODUCTS	
Week 13		ANTIPERSPIRANTS AND DEODORANTS	
Week 14		Review	
Week 15		Final Exam	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1			50.00%
	Semester Evaluation				
	Midterm(s)	1			50.00%
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory				
	Other				

*** *Lifelong Learning Programme (LLP)* *** | Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours		Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours				Applied Hours		
Midterm				Final		
Quiz				Project		
Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Other				Self Study		
				TOTAL :		
				Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE - FACULTY OF PHARMACY

Clinical Pharmacy Department

SYLLABUS

2024-2025 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR454	Clinical Pharmacy II		4			3	6	Every week Tuesdays 14.00-16.00 Wednesdays 14.00-16.00
		Prerequisite to						

Course Lecturer	**Assist.Prof.Dr. Meryem Deniz Aydın**	**Office Hours Schedule**	Wednesdays 10.00-13.00
Phone		**Office / Room No**	Pharmacy Faculty
Teaching Assistant(s)	-	**Phone**	-
E-mail	maydin-lau@eul.edu.tr	**Office / Room No**	-

Course Objectives	By the end of this course, students will be able to: Understand clinical pharmacy and patient-oriented pharmacy principles. Explain the role of clinical pharmacists in rational drug use. Describe clinical pharmacists' responsibilities in patient care.Apply a systematic approach to solve drug-related problems. Apply clinical pharmacy principles to diverse case studies.Explain the proper use of pharmaceutical dosage forms.
Learning Outcomes	Explain the specific roles and responsibilities of clinical pharmacists in patient care, Apply clinical pharmacy principles effectively in solving case studies covering a range of diseases and conditions, such as internal diseases, neurological diseases, vascular diseases and infectious diseases.

Textbooks and/or References		
	1	Pharmacotherapy Principles and Practice 6th
	2	DiPiro: Pharmacotherapy A Pathophysiologic Approach, 12e
	3	DiPiro: Pharmacotherapy Handbook, 11e
	4	Applied Therapeutics The Clinical Use of Drugs 11e

WEEK	Date	TOPICS	Reference No - Section
Week 1	11.02.2025 12.02.2025	Introduction to Clinical Pharmacy II	1,2,3,4
Week 2	18.02.2025 19.02.2025	Infectious Diseases I	1,2,3,4
Week 3	25.02.2025 26.02.2025	Infectious Diseases II	1,2,3,4
Week 4	04.03.2025 05.03.2025	Diabetes Mellitus	1,2,3,4
Week 5	11.03.2025 12.03.2025	Obesity	1,2,3,4
Week 6	18.03.2024 19.03.2025	Thyroid Disorders	1,2,3,4
Week 7	25.03.2025 26.03.2025	Osteoporosis	1,2,3,4
Week 8	02.04.2025	Venous Thromboembolism	1,2,3,4
Week 9	08.04.2025 09.04.2025	Stroke	1,2,3,4
Week 10	12-20.04.2025	Midterm(s)	
Week 11	22.04.2025	Epilepsy	1,2,3,4
Week 12	29.04.2025 30.04.2025	Parkinsons Disease	1,2,3,4
Week 13	06.05.2025 07.05.2025	Alzheimers Disease	1,2,3,4
Week 14	13.05.2025 14.05.2025	Headache & Migraine	1,2,3,4
Week 15	23.05.2025-02.06.2025	Final Exams	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	**1**	**23.05.2025-02.06.2025**		**60.00%**
	Semester Evaluation				
	Midterm(s)	**1**	**12-20.04.2025**		**40.00%**
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory				
	Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours		Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	4	56 hours (14 weeks x 4h)		Applied Hours		
Midterm	1	25 hours (study + exam)		Final	1	35 hours (study + exam)
Quiz				Project		

Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Other				Self Study		34 hours
				TOTAL :	150 hours	
				Recommended ECTS Credit (Total Hours / 25) :		150/25= 6 ECTS

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

SYLLABUS

2023-2024 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
PHAR434	Phytotherapy		3	0	0	3		Tuesday: 15:00-16:50
		Prerequisite to						

Course Lecturer	Assist.Prof.Dr.Najat Agiel	Office Hours Schedule	Monday:9:00-10:00 Tuesday:10:00-12:00 Wednesday:9:00-10:00
E-mail	nagiel@eul.edu.tr		
Phone		Office / Room No	2595
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room No	-

Course Objectives	The aim of this course is to teach the main concepts, definitions and worldwide regulations in phytotherapy, therapeutical effects of herbal medicines.
Learning Outcomes	Based on the overall objective, students are expected to achieve the following learning outcomes at the end of the course: 1. Has national and international up-to-date, theoretical and applied knowledge in the field of pharmacy. 2. Expresses the Basic Principles and definitions in Phytotherapy 3. Learn about the related International and National regulations. 4. Hold on an opinion on the metabolism of the herbal remedies in the body. 5. Learn and be able to discuss the possible risks of phytotherapy applications. 6. Learn the pharmacological effects of herbal medicines based on scientific evidences.
Textbooks and/or References	Pharmacodynamic and Pharmacokinetic Characteristics of HMPs

WEEK	Date	TOPICS	Reference No - Section
Week 1	13.02.24	Introduction to Phytotherapy. Definitions and Concept	
Week 2	20.02.24	Quality Control in Herbal Medicines	
Week 3	27.02.24	Pharmacodynamic and Pharmacokinetic Characteristics of HMPs	
Week 4	05.03.24	Phytomedicine for the Cardiovascualr and cancer phytotherapy	
Week 5	12.03.24	Central Nervous System and Endocrine system phytopharnaceuticals	
Week 6	19.03.24	Respiratory system and infectious diseases phytotherapy	
Week 7	26.03.24	Discussion and Revision	
Week 8	02.04.24	Midterm(s)	
Week 9	09.04.24	Phytptherapy for the Eye, ear and Nose skin	
Week 10	16.04.24	Phytotherapy of the Digestive System	
Week 11	23.04.24	Phytotherapy of the Muscular system	
Week 12	30.04.24	Phytotherapy in Gynaecology and inflammatory Disorders	
Week 13	07.05.24	Herbal supplements	
Week 14	14.05.24	Herbal teas	
Week 15	21.05.24	Preapartion of herbal teas lab	
Week 16	28.05.24	Results and discussion	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	
	Semester Evaluation				
	Midterm(s)	1		40	
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory				
	Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours		Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours				Applied Hours		
Midterm				Final		
Quiz				Project		

Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Other				Self Study		
				TOTAL :		
				Recommended ECTS Credit (Total Hours / 25) :		

EUROPEAN UNIVERSITY OF LEFKE- "FACULTY OF PHARMACY"

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SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
Phar 212	Physical Pharmacy II							
		Prerequisite to						

Course Lecturer	Assist. Prof. Musaab SAADA	Office Hours Schedule	
Phone	5488892824	Office / Room No	
Teaching Assistant(s)	-	Phone	-
E-mail		Office / Room No	-

Course Objectives	Understand the distinctions between crystalline and amorphous polymers and their implications for drug formulation and delivery. Explore the adsorption and distribution mechanisms of drugs within polymer matrices, as well as the metabolic and elimination pathways of encapsulated drugs. Examine the factors influencing complexation and protein binding in pharmaceutical systems, and understand their impact on drug pharmacokinetics. Delve into the principles of pharmaceutical biotechnology, exploring its applications in drug development and its influence on pharmaceutical manufacturing. Investigate the principles and applications of nanotechnology in drug delivery and formulation, and evaluate the advantages and challenges associated with its use in pharmaceuticals.
Learning Outcomes	Upon successful completion of this course, students will be able to: Differentiate between crystalline and amorphous polymers and apply this knowledge to design drug delivery systems. Analyze drug adsorption and distribution within polymer matrices, and evaluate the impact of polymer encapsulation on drug metabolism and elimination. Identify factors affecting complexation and protein binding in pharmaceutical contexts and predict the pharmacokinetic consequences of these processes. Demonstrate understanding of pharmaceutical biotechnological processes and discuss the role of biotechnology in modern pharmaceutical manufacturing. Discuss the principles and applications of nanotechnology in drug delivery, and assess the advantages and challenges associated with its integration in pharmaceuticals.
Textbooks and/or References	

WEEK	Date	TOPICS	Reference No - Section
Week 1		INTRODUCTION	
Week 2		PHARMACEUTICAL POLYMERS	
Week 3		POLYMER PROPERTIES (CRYSTALLINE AND AMORPHOUS POLYMERS)	
Week 4		POLYMERS FOR PHARMACEUTICAL APPLICATIONS	
Week 5		ADSORPTION AND DISTRIBUTION OF DRUG	
Week 6		METABOLISM AND ELIMINATION OF DRUGS	
Week 7		Holiday	
Week 8		Midterm Exam	
Week 9		COMPLEXATION AND PROTEIN BINDING	
Week 10		FACTORS AFFECTING COMPLEXATION AND PROTEIN BINDING	
Week 11		PHARMACEUTICAL BIOTECHNOLOGY	
Week 12		PHARMACEUTICAL BIOTECHNOLOGY	
Week 13		NANOTECHNOLOGY	
Week 14		Holıday	
Week 15		Final Exam	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1	May 27, 2019		50.00%
	Semester Evaluation				
	Midterm(s)	1	April 15, 2019		50.00%
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory				
	Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours		Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours				Applied Hours		

Midterm				Final		
Quiz				Project		
Laboratory				Homework		
Atelier				Seminar		
Field Study				Presentation		
Other				Self Study		
TOTAL :						
Recommended ECTS Credit (Total Hours / 25) :						