



SAĞLIK
BİLİMLERİ
ENSTİTÜSÜ



ENSTİTÜSÜ
BİLGİ TEKNOLOJİLERİ

**DEPARTMENT OF
PHARMACEUTICAL TECHNOLOGY
GRADUATE PROGRAMS**

ACADEMIC STAFF



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- **Prof. Dr. Sevgi TAKKA** (Head of Division)
- **Prof. Dr. Zeynep Şafak TEKSİN**
- **Prof. Dr. Tuba İNCEÇAYIR**
- **Prof. Dr. Sibel İLBASMIŞ TAMER**
- **Prof. Dr. Fatma Nur TUĞCU DEMİRÖZ**
- **Assoc. Prof. Dr. N. Başaran MUTLU AĞARDAN**
- **Assoc. Prof. Dr. Serdar TORT**
- **Assist. Prof. Dr. Tahir Emre YALÇIN**
- **Assist. Prof. Dr. Duygu YILMAZ USTA**
- **Res. Assist. Dr. Sinem SAAR**
- **Res. Assist. Dr. Ayşegül YILDIZ**
- **Res. Assist. Emre TUNÇEL**
- **Res. Assist. Şeyma EDİSAN**
- **Res. Assist. Nihal Tuğçe ÖZAKSUN**
- **Res. Assist. Seval OLĞAÇ**
- **Res. Assist. Hilalnur İlayda BİÇİCİ**
- **Res. Assist. Güzde BEBEK**



FIELDS OF RESEARCH-1



- Development of conventional formulations for therapeutic or cosmetic purposes (solutions, suspensions, emulsions, semi-solid preparations, gels, powders, tablets, capsules, parenteral preparations, transdermals, etc.)
- Development of micro- or nano-sized drug delivery systems for therapeutic or cosmetic purposes (micro/nanosuspensions, micro/nanoemulsions, micro/nanoliposomes, solid lipid nanoparticles, nanofibers, nanotubes, micelles, etc.)
- Determination of physicochemical properties of conventional formulations and nano-sized drug delivery systems, quality control, and stability studies
- Development of sustained release dosage forms and determination of their properties (matrix structures, transdermal systems, osmotic pressure controlled systems, etc.)
- Dissolution and in vitro release kinetics of drug delivery systems
- Increasing oral drug absorption and gastrointestinal drug permeability
- Bioavailability/Bioequivalence studies
- Biopharmaceutics classification systems (BCS)
- Carrying out skin penetration studies, modeling the permeation of drugs across the skin, using artificial neural networks in skin penetration
- Dermal microdialysis and dermatopharmacokinetics
- Iontophoresis
- Carbon nanotubes as drug delivery systems and their permeation across the skin



FIELDS OF RESEARCH-2



- Design and development of peptide/protein formulations, their quality control and efficacy tests
- Mucoadhesion and bioadhesive drug delivery systems
- Design and development of drug formulations administered via transmucosal (oral, nasal, vaginal) route
- Pharmaceutical Biotechnology
- Drug permeability studies in cell cultures (Caco-2, MDCK, MCF7, MDA231)
- Studies on blood-brain barrier
- In vitro–in vivo correlation
- Quality by design (QbD)
- Targeting – colon-specific drug systems
- Development of drug delivery systems administered via the pulmonary route
- GMP studies
- Patent (for medicines, medical devices and cosmetic products)
- Cosmetology
- Design and quality control of dosage forms used in veterinary medicine
- Regulations on pharmaceutical and cosmetic products
- Stability testing of pharmaceutical and cosmetic products
- Wound healing and wound dressing products



FIELDS OF RESEARCH-3



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- Solutions to the challenging problems in the pharmaceutical industry
- Research and Development (R&D) and Scale-up
- Quality management in pharmaceutical manufacturing
- Intellectual and industrial property rights in the pharmaceutical and chemical industry
- Drug licensing
- Analytical process technology and quality by design
- Pharmacoeconomics
- Quality control and instrumental analysis methods for pharmaceuticals
- Evaluation of Bioavailability/Bioequivalence of drug formulations



FIELDS OF RESEARCH-4



- Structures and formulations of cosmetic products
- Manufacturing technologies
- Advanced delivery systems in cosmetics
- Dermocosmetic products
- Regulation and legislation for cosmetic products
- GMP rules, efficacy testing of cosmetic products
- Cosmetic dermatology
- Development of new delivery systems such as nanoemulsions, microemulsions, nanoparticles and liposomes for cosmetic purposes



RESEARCH FACILITIES-1 (LABORATORY INFRASTRUCTURE)



SAĞLIK
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- Tablet Pressing Machine
- Rotary Tablet Pressing Machine
- Tablet Disintegration Tester
- Tablet Hardness Tester
- Friabilator
- Granulator
- V Type Mixer
- IR Moisture Analyzer
- Distilled Water Device
- Bidistilled Water Device
- HPLC
- UPLC
- UV-Vis Spectrophotometer
- Flow-Through Cell Dissolution Tester
- Dissolution Tester
- Texture Analyzer
- Particle Size Analyzer
- Viscometer
- AFM Device
- Differential Scanning Calorimetry (DCS)
- Differential Thermal Analyzer (DTA)
- Zeta Potential and Particle Size Analyzer
- Nano Spray Dryer
- Electrospinning Device
- Lyophilizer



RESEARCH FACILITIES-2 (LABORATORY INFRASTRUCTURE)



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- Heated Water Baths
- Ultrasonic Water Bath
- Rotary Evaporator
- Ultrasonic Homogenizer
- High Pressure Homogenizer
- Air Conditioning Cabinet
- Peristaltic Pump
- Vacuum Pump
- Heating Cabinet
- Digital Precision Scales
- Mechanical Mixers
- Magnetic Stirrers
- pH meter
- Deep freeze
- Light Microscope
- Laminar Flow Cabinet
- Centrifuge
- High Speed Centrifuge
(Ultracentrifuge)
- Rotavapor
- TEER Device



QUOTA NUMBERS AND PROGRAM ADMISSION REQUIREMENTS FOR FALL SEMESTER 2024/2025



SAĞLIK
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ENSTİTÜSÜ

QUOTA			SCORE TYPE	PROGRAM TYPE	SCORE CRITERIA		
MASTER'S DEGREE	DOCTORATE	FOREIGN NATIONAL MA/DR.			ALES SCORE/ *TUS*	FOREIGN LANGUAGE SCORE	GRADUATION GRADE (UNDERGRADUATE / MA)
4			E.W./NUM.	MASTER'S DEGREE	60	55	2.5/4
	12		E.W./NUM.	DR.	60	60	2.75/4

UNDERGRADUATE PROGRAMS ADMITTING STUDENTS

DOCTORATE	2850	PHARMACEUTICAL TECHNOLOGY
	2544	PHARMACY (5 YEARS)
MASTER'S DEGREE	2850	PHARMACY



QUOTA NUMBERS AND PROGRAM ADMISSION REQUIREMENTS FOR FALL SEMESTER 2024/2025 INDUSTRIAL PHARMACY PROGRAM



SAGLIK
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QUOTA			SCORE TYPE	PROGRAM TYPE	SCORE CRITERIA		
MASTER'S DEGREE	DOCTORATE	FOREIGN NATIONAL MA/DR.			ALES SCORE/ *TUS*	FOREIGN LANGUAGE SCORE	GRADUATION GRADE (UNDERGRADUATE / MA)
4	-	-	E.W./NUM.	MASTER'S DEGREE	60	55	2.5/4

UNDERGRADUATE PROGRAMS ADMITTING STUDENTS

MASTER'S DEGREE	2544	PHARMACY
	3749	CHEMICAL ENGINEERING
	3759	CHEMIST
	2490	DENTIST
	2124	BIOLOGY
	5370	MEDICINE
	5719	VETERINARY MEDICINE



QUOTA NUMBERS AND PROGRAM ADMISSION REQUIREMENTS FOR FALL SEMESTER 2024/2025 COSMETOLOGY PROGRAM



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QUOTA			SCORE TYPE	PROGRAM TYPE	SCORE CRITERIA		
MASTER'S DEGREE	DOCTORATE	FOREIGN NATIONAL MA/DR.			ALES SCORE/ *TUS*	FOREIGN LANGUAGE SCORE	GRADUATION GRADE (UNDERGRADUATE / MA)
4			E.W./NUM.	MASTER'S DEGREE	60	55	2.5/4

UNDERGRADUATE PROGRAMS ADMITTING STUDENTS

MASTER'S DEGREE	2544	PHARMACY
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