

School of Pharmacy / School of Pharmacy (English)

2024 - 2025 Academic Year

DIGITAL PHARMACY

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
DIGITAL PHARMACY	PHA5115586	Fall Semester	2+0	2	3
Prerequisites Courses					
Recommended Elective Courses	R&D in Pharmacy, IT Systems and e-Business				
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Elective				
Course Coordinator	Assist.Prof. İpek EROĞLU				
Name of Lecturer(s)	Assist.Prof. İpek EROĞLU				
Assistant(s)					
Aim	To educate, teach and train about digital pharmacy concepts and applications				
Course Content	This course contains; Introduction to digital pharmacy,Digital public health and pharmacy,Digital pharmacy education,Pharmacy and IT,New generation pharmacies,Digital guidebooks and digital platforms related to pharmacy,Digital communication and pharmacy,Pharmacy and AI,Digital therapeutics,Robotic systems in pharmacy,Digital innovation and digital entrepreneurship in pharmacy,Sustainability and digital transformation in pharmacy,Ethical issues and regulations in digital pharmacy,Future perspective.				
Course Learning Outcomes		Teaching Methods	Assessment Methods		
1. Understands the concept of digitalization and its applications in pharmacy and pharmaceutical sciences.		16, 9	C		
2. Evaluates the role of digital technologies in pharmacy education, pharmacy practice and patient care.		16, 9	C		
3. Analyzes the impact of digital technologies on pharmaceutical industry, and pharmaceutical patient care.		16, 9	C		
4. Develops critical thinking skills to assess the ethical and regulatory implications of digitalization in pharmacy and pharmaceutical sciences.		16, 9	C		
Teaching Methods	16: Question - Answer Technique, 9: Lecture Method				
Assessment Methods	C: Multiple-Choice Exam				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Introduction to digital pharmacy	1,2,3,4,5			
2	Digital public health and pharmacy	1,2,3,4,5			
3	Digital pharmacy education	1,2			
4	Pharmacy and IT	1,2,3,4,5			
5	New generation pharmacies	1,2,3,4,5			
6	Digital guidebooks and digital platforms related to pharmacy	1,2,3,4,5			
7	Digital communication and pharmacy	1,2,3,4,5			
8	Pharmacy and AI	1,2,3,4,5			
9	Digital therapeutics	1,2,3,4,5			
10	Robotic systems in pharmacy	1,2,3,4,5			
11	Digital innovation and digital entrepreneurship in pharmacy	1,2,3,4,5			
12	Sustainability and digital transformation in pharmacy	1,2,3,4,5			
13	Ethical issues and regulations in digital pharmacy	1,2,3,4,5			
14	Future perspective	1,2,3,4,5			
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources
1. Lecture notes
2. Glauner, P., Plugmann, P., & Lerzynski, G. (2021). Digitalization in healthcare. Springer International Publishing.
3. Krittanawong, C. (Ed.). (2023). Artificial Intelligence in Clinical Practice: How AI Technologies Impact Medical Research and Clinics. Elsevier.
4. Mirzaei, A., & Rijcken, C. (Eds.). (2023). Pharmaceutical Care in Digital Revolution: Blending Digital with Human Innovation. Elsevier.
5. Ouyang, D. (Ed.). (2024). Exploring Computational Pharmaceutics: AI and Modeling in Pharma 4.0. John Wiley & Sons.