Course Syllabus

Code - Course Title	**SAĞ307 - Artificial Intelligence in Health**
Course Type	V. SEMESTER
Laboratory + Practice	2+0
ECTS	**3.0**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	ÖĞR. GÖR. DR. HANDE TİRYAKİ

Mode of Delivery	The mode of delivery of this course is face to face
Place of Delivery	On Campus
Used Educational Platforms	Face-to-face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	There is no recommended optional programme component for this course.
Recommended Resources	Machine Learning - Ethem Alpaydın
Work Placement	N/A
Aims of the Course	The aim of this course is to ensure that students learn the fundamental concepts, methods, and operating principles of artificial intelligence and machine learning, and to enable them to comprehend the potential applications of these technologies in the field of healthcare.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Introduction to Artificial Intelligence: Historical Perspective	
Week - 2		Learning from Data: Understanding Data, Types, and Sources	
Week - 3		Introduction to Machine Learning	
Week - 4		Descriptive Models in Machine Learning	
Week - 5		Predictive Models in Machine Learning	
Week - 6		Introduction to Deep Learning	
Week - 7		Generative Artificial Intelligence	
Week - 8		Natural Language Processing	
Week - 9		Artificial Intelligence Applications in the field of Health Sciences	
Week - 10		Artificial Intelligence Ethics	

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 11		Developing Artificial Intelligence Strategy	
Week - 12		Implementing Artificial Intelligence Solutions in the field of Health Sciences	
Week - 13		Case Studies	
Week - 14		Case Studies	

Learning Outcomes

#	Learning Outcome
1	Will be able to evaluate and identify potential applications of artificial intelligence within a health sciences context.
2	Formulate comprehensive AI strategies for health sciences objectives.
3	Assess the benefits and limitations of AI solutions in the field of health sciences.
4	Analyze how generative AI technologies can be utilized within the field of health sciences.

Sustainable Development Goals

✓ Health and Quality of Life ✓ Quality Education ✓ Decent Work and Economic Growth

Course Theme

✓ Health Sciences and Medical Technologies ✓ Artificial Intelligence

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

✓ Multiple Choice Test

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	40
Final Exam	1	60
	Sum (%)	**100**

Community Service Activity

This course does not include any Community Service activities.