ARTIFICIAL INTELLIGENCE AND TELEMEDICINE IN DERMATOLOGY

1	Course Title:	ARTIFICIAL INTELLIGENCE AND TELEMEDICINE IN DERMATOLOGY	
2	Course Code:	TTIP5010	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	0	
6	Semester:	2	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	none	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. EMEL BÜLBÜL BAŞKAN	
15	Course Lecturers:	Prof.Dr.Emel Bülbül Başkan	
16	Contact information of the Course Coordinator:	bbemel@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	Since the purpose of the Translational Medicine program is defined as a “bed to bench” and focuses entirely on solving problems in medicine, it aims to enable the graduate students included in this program to see and understand the examples of artificial intelligence in dermatological diseases and to create a platform for scientific studies.	
19	Contribution of the Course to Professional Development:	To learn the basic concepts of artificial intelligence applications in skin diseases, to examine artificial intelligence applications in skin cancers, follow-up and treatment of chronic diseases, hair and nail diseases and aesthetic dermatology, to construct a scientific study plan with literature examples, and to discuss real-time skin analysis and face recognition programs as examples.	
20	Learning Outcomes:		
		1	Comprehending artificial intelligence application examples in dermatology
		2	Learning artificial intelligence applications in skin cancers and chronic skin diseases
		3	examining artificial intelligence applications in skin samples such as hair and nails
		4	to be able to discuss artificial intelligence literature
		5	To comprehend telemedicine applications in dermatology
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21	Course Content:		
	Course Content:		
Week	Theoretical		Practice

1	Basic concepts in artificial intelligence applications in skin diseases	
2	Artificial intelligence applications in skin cancers	
3	Artificial intelligence in precision medicine applications	
4	Artificial intelligence applications in Aesthetic Dermatology	
5	Artificial intelligence in the follow-up and treatment of chronic diseases	
6	Artificial intelligence in nail diseases	
7	The use of artificial intelligence in hair diseases	
8	Artificial intelligence dermatology literature discussion _I	
9	Artificial intelligence dermatology literature discussion _II	
10	Real-time skin analysis	
11	Face tracking technologies	
12	Telemedicine applications in dermatology	
13	Telemedicine applications in dermatology-II	
14	Evaluation	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	20	2.00	40.00
Homeworks	20	2.00	40.00
Projects	20	2.00	40.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	15	2.00	30.00
Final Exams	1	1.00	1.00
Total Work Load			179.00
Total work load/ 30 hr			5.97
ECTS Credit of the Course			6.00

22	Textbooks, References and/or Other Materials:	Artificial Intelligence in Dermatology: A Primer. Young AT, Xiong M, Pfau J, Keiser MJ, Wei ML. J Invest Dermatol. 2020 Aug;140(8):1504-1512. doi: 10.1016/j.jid.2020.02.026. Epub 2020 Mar 27. PMID: 32229141 Free article. Review. Artificial Intelligence in Dermatology-Where We Are and the Way to the Future: A Review. Hogarty DT, Su JC, Phan K, Attia M, Hossny M, Nahavandi S, Lenane P, Moloney FJ, Yazdabadi A. Am J Clin Dermatol. 2020 Feb;21(1):41-47. doi: 10.1007/s40257-019-00462-6. Artificial intelligence in dermatology for the clinician. Patel S, Wang JV, Motaparthi K, Lee JB. Clin Dermatol. 2021 Jul-Aug;39(4):667-672. doi: 10.1016/j.clindermatol.2021.03.012. Epub 2021 Mar 19. What is AI? Applications of artificial intelligence to dermatology. Du-Harpur X, Watt FM, Luscombe NM, Lynch MD. Br J Dermatol. 2020 Sep;183(3):423-430. doi: 10.1111/bjd.18880. Epub 2020 Mar 29. Artificial intelligence in dermatology and healthcare: An overview. Pai VV, Pai RB. Indian J Dermatol Venereol Leprol. 2021 [SEASON];87(4):457-467. doi: 10.25259/IJDVL_518_19. Artificial intelligence in medicine and dermatology. Wozniacka A, Patrzyk S, Mikolajczyk M. Postepy Dermatol Alergol. 2021 Dec;38(6):948-952. doi: 10.5114/ada.2020.101259. Epub 2022 Jan 7. PMID: 35125999 Free PMC article. Review. Artificial Intelligence Applications in Dermatology: Where Do We Stand? Gomolin A, Netchiporouk E, Gniadecki R, Litvinov IV. Front Med (Lausanne). 2020 Mar 31;7:100. doi: 10.3389/fmed.2020.00100. eCollection 2020. PMID: 32296706 Free PMC article. Review. Artificial Intelligence in Medicine: Where Are We Now? Kulkarni S, Seneviratne N, Baig MS, Khan AHA. Acad Radiol. 2020 Jan;27(1):62-70. doi: 10.1016/j.acra.2019.10.001. Epub 2019 Oct 19. PMID: 31636002 Review. Artificial Intelligence in Dermatology: A Practical Introduction to a Paradigm Shift. Eapen BR.Indian Dermatol Online J. 2020 Nov 8;11(6):881-889. doi: 10.4103/idoj.IDOJ_388_20. eCollection 2020 Nov-Dec. Artificial intelligence in dermatology. Rundle CW, Hollingsworth P, Dellavalle RP. Clin Dermatol. 2021 Jul-Aug;39(4):657-666. doi: 10.1016/j.clindermatol.2021.03.011. Epub 2021 Mar 19
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	0	0.00
Quiz	0	0.00

Home work-project	0	0.00
Final Exam	1	100.00
Total	1	100.00
Contribution of Term (Year) Learning Activities to Success Grade		0.00
Contribution of Final Exam to Success Grade		100.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		open ended questions

24 ECTS / WORK LOAD TABLE

25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS

	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	4	3	3	3	4	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**