Course Syllabus

Code - Course Title	**DKT230 - Computerized Speech Laboratory**
Course Type	IV. SEMESTER
Laboratory + Practice	2+1
ECTS	**3.0**
Language of Instruction	Türkçe
Course Type	Area Elective Courses
Course Instructor(s)	DR. ÖĞR. ÜYESİ EREN BALO

Mode of Delivery	Face to face
Place of Delivery	On Campus
Used Educational Platforms	Face-to-face
Prerequisites	There are no prerequisite courses.
Courses Recomended	DKT108 Phonetics and Phonetics LaboratoryDKT226 Speech Science: Acoustics and Perception of Hearing and SpeechDKT250 Clinical Linguistics
Recommended Resources	Ryalls, J. & Behrens, S. (2003). Introduction to Speech Science. World Publishing.Ball, M., & Code, C. (1997). Instrumental Clinical Phonetics. Whurr, London.Ludlow, C. L., Kent, R. D., & Gray, L. C. (2018). Measuring voice, speech, and swallowing in the clinic and laboratory (Vol. 1). Plural Publishing.
Work Placement	Practical applications using acoustic analysis software will be conducted both during and outside of class for the assignments given within the scope of this course.
Aims of the Course	The aim of this course is to provide students with fundamental knowledge and practical skills regarding the computer hardware, software, and information technologies used in speech and language therapy. The course covers the recording, analysis, and synthesis of speech sounds in a computer environment; acoustic and voice analysis using programs such as PRAAT, MDVP, and CSL; nasometry; voice tract imaging methods; and the role of ultrasonography in speech and language therapy. It is intended that students will be able to use these tools at a basic level, interpret the obtained data, and transfer current computer-based therapy methods into clinical practice.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Terminology of acoustic phonetics	
Week - 2		Computer-based hardware and sofware used in speech and language therapy	
Week - 3		Analysis with information technologies used in speech and language therapy	
Week - 4		Using the analysis programs included in the CSL for assessment and intervention	
Week - 5		Healthy and dysphonic voice analysis in PRAAT program	
Week - 6		Acoustic analyses of speech sounds via PRAAT	

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 7		Nasalance assessment with the technological tools in the speech and language therapy	
Week - 8		Application of nasometre and NADA test on patients with velopharyngeal dysfunction	
Week - 9		The role of ultrasound technology in the speech and language therapy	
Week - 10		The role of vocal tract imaging in speech and language therapy.	
Week - 11		Biofeedback in speech analysis	
Week - 12		General evaluation	

Learning Outcomes

#	Learning Outcome
1	The student will be able to identify computer-based hardware and software that can be used practically and frequently in the field of speech and language therapy.
2	The student can perform analysis on speech sounds.
3	The student can recognize acoustic voice parameters used in the field of voice disorders.
4	The student can explain the areas of use for methods such as nasometry, vocal tract imaging, and ultrasound in speech and language therapy.
5	The student can define current computer-based therapy methods in the field of speech and language therapy.
6	The student can interpret data obtained from computer-based analyses at a basic level.

Sustainable Development Goals

✓ Health and Quality of Life ✓ Quality Education

Course Theme

✓ Health Sciences and Medical Technologies

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	3.00	12	36
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	5.00	2	10
Ödevler	10.00	1	10
Proje - Rapor - Sunum Hazırlama	0.00	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	5.00	1	5
Final Sınavı Hazırlığı (sınav süresi dahil)	5.00	1	5

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	3.00	3	9
Staj Uygulaması	0.00	0	0
		Calculated ECTS	**3.0**

Assessment Method and Passing Requirements

✓ Open-Ended Test ✓ Multiple Choice Test ✓ Short-Answer Test ✓ True-False Test ✓ Fill-in-the-Blank Test ✓ Homework