TOROS ÜNİVERSİTESİ

Faculty Of Fıne Arts, Desıgn And Archıtecture
Interıor Desıgn

Course Information

ACOUSTIC					
Code	**Semester**	**Theoretical**	**Practice**	**National Credit**	**ECTS Credit**
		Hour / Week			
ICM417	Fall	3	0	3	3

Prerequisites and co-requisites	None
Language of instruction	Turkish
Type	Elective
Level of Course	Bachelor's
Lecturer	Prof. Erkin ERTEN
Mode of Delivery	Face to Face
Suggested Subject	None
Professional practise (internship)	None
Objectives of the Course	Students to gain bassic knowledge of the volume for acoustic planning.
Contents of the Course	Basic concepts in sonic and visual event, outdoor and indoor distinction between the sound field in space, reflection and swallowed the sound indoors, acoustics parameters, reverberation effect and duration, the optimum reverberation time, volume calculations, the first reflection, asset criteria and response curve, basics of acoustic defects and measures issues, examining the existing hall and the acoustics of a conference hall project.

Learning Outcomes of Course

#	Learning Outcomes
1	To be able to express the definitions, physical events, voice origination, sound propagation, reflection, breaking, absorption, sound penetration.
2	To be able to explain noise, levels, auditory characteristics and types of sound. Explain the harmful effects of noise on humans.
3	Describe the measures and principles of noise control.
4	Effective and economical application of noise control in urban planning and volume planning.
5	To be able to choose appropriate building elements and materials in noise control.

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Place in architecture of the accoustics issues.	Theoretical expressions
2	The components of the sound. Music, speech and noise basic features.	Theoretical expressions
3	Acoustics, basic principles, the distiinction between indoor and outdoor acoustic environments.	Theoretical expressions
4	Acoustic criteria (T60, EDT, C80, D50, such as TS).	Theoretical expressions
5	Reverberation time calculation methods and applications.	Theoretical expressions
6	Conference room reverberation time calculations.	Theoretical expressions
7	Sound rays, importance and reflective surfaces in volume in the first volume of the acoustic reflection.	Theoretical expressions
8	Midterm exam	
9	Reflective surface design applications at the conference hall.	Theoretical expressions

10	Voume asset criteria, calculation methods and practices related to the response curve. Acoustic defects and measures in volume.	Theoretical expressions
11	Acoustic defects and measures in volume.	Theoretical expressions
12	Studynig in terms of acoustics and evaluation criteria of the existing hall.	Theoretical expressions
13	Computer program used in acoustics.	Theoretical expressions
14	The examples of scientific studies on the topic acoustics, research by students, exained and presented in seminars.	Theoretical expressions
15	The examples of scientific studies on the topic acoustics, research by students, exained and presented in seminars.	Theoretical expressions
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	Lecture Notes		
2	Media Acoustics ve Architectural Acoustics Eğitim CD'leri		
3	Sirel, Ş., 1980. Yapı Akustiği I, İDMMA Basımevi, İstanbul.		
4	Sirel, Ş., 1981. Hacim Akustiğinde Yansışım Süresi, Yapı Fiziği Bilim Dalı Yayınları, İDMMA Basımevi, İstanbul.		
5	Templetion, B., Saunders, D., "Acoustic Design", The Alden Press., UK., 1987.		
6	Karabiber, Z., 1991. Mimari Akustikle İlgili Başlıca Tanım, Terim, Formül ve Büyüklükler, Y.Ü.Mimarlık Fakültesi Baskı İşliği, İstanbul.		
7	Maekawa, Z., Lord, P., "Environmental and Architectural Acoustics", E&F Spon., UK., 1994.		
8	Maekawa, Z., Lord, P., Environmental and Architectural Acoustics, E & FN SPON, London, 1994.		
9	Irvine, L.K., Richards, R.L.: Acoustics and Noise Control Handbook for Architects and Builders, Krieger Publishing Company, USA, 1998.		
10	Heinrich Kutruff, Room Acoustics, Taylor & Francis, London, Newyork,1999		

Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	To be able to express the definitions, physical events, voice origination, sound propagation, reflection, breaking, absorption, sound penetration.	5	1,2
2	To be able to explain noise, levels, auditory characteristics and types of sound. Explain the harmful effects of noise on humans.	10	1,2
3	Describe the measures and principles of noise control.	3,10	1,2
4	Effective and economical application of noise control in urban planning and volume planning.	9,11	1,2
5	To be able to choose appropriate building elements and materials in noise control.	10	1,2

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	3	42
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	3	42
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	0	0	0
8	Midterm Exam	1	3	3
9	Quiz	0	0	0
10	Homework	0	0	0
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	0	0	0
15	Preparation for Final Exam	0	0	0
16	Final Exam	1	3	3
				90