BUILDING PHYSICS

1	Course Title:	BUILDING PHYSICS	
2	Course Code:	MIM3003	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	3	
6	Semester:	5	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	-	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. FILIZ ŞENKAL SEZER	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	filizss@gmail.com, Tel: 0. 224. 2942126 Uludağ Üniversitesi Müh.- Mim. Fak. Mimarlık Bölümü	
17	Website:		
18	Objective of the Course:	This course has fundamental knowledge about concept of physical environment and elements of building physics. The aim of this course is to give information about thermal comfort, heat insulation, humidity and condensation, sound insulation, noise control and lighting (natural and artificial light sources). This course aims to take measures to ensure comforts provisions so that people can be healthy and productive in their living quarters and to teach the environmental control criteria for the planning and construction phases of a building. It also aims to teach how to take measures to ensure comfort provisions in people's living quarters for a healthy and productive life.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	To recognize the concept of building physics
		2	To have knowledge about building physics problems
		3	To know the measures and appropriate solutions against building physics problems
		4	To gain research skills, teamwork skills, speaking and writing skills, graphic skills to work, ability to benefit from the examples and critical thinking skills
		5	
		6	
		7	
		8	
		9	
		10	
21	Course Content:		

	Course Content:	
Week	Theoretical	Practice
1	The aim and the scope of the course: Building Physics Mechanical effects and building physics problems, mechanical deformations and material selection	
2	Mechanical effects and building physics problems, mechanical deformations and material selection	
3	Thermal conductivity, thermal comfort and factors of affecting the thermal comfort	
4	The importance of thermal insulation and energy savings, measures against heat loss in buildings, insulation applications	
5	Insulating materials and their properties	
6	Heat loss calculation on the walls (TS 825)	
7	Midterm exam and Course review	
8	Effect of water-humidity and building physics problems, condensation control	
9	Account of transpiration and condensation control in different wall sections	
10	Sound effect in buildings and building physics problems, acoustic problems, and material selection	
11	Calculation of permeability values of sound in building materials.	
12	Physic-chemical effects and building physics problems	
13	Mistakes and verifies in terms of building physics in constructions, Presentation of students' homework	
14	Light and sound control in architecture, lighting and basic rules of lighting design	
22	Textbooks, References and/or Other Materials:	ERİÇ, M., 1994, “Yapı Fiziği ve Malzemesi”, (Building Physics and Materials), Literatür Yayınları, İstanbul. KARAKOÇ, H. ve BİNYILDIZ, E. ve TURAN, O., 1999, “Binalarda ve Tesisatta Isı Yalıtımı”, ODE Teknik Yayınları, No: G 20, İstanbul. Yalıtım Dergisi (Insulation Magazine)(periodicals)
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	30.00
Quiz	0	0.00
Home work-project	1	10.00
Final Exam	1	60.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00

Contribution of Final Exam to Success Grade	60.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	

24 ECTS / WORK LOAD TABLE

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	13	3.00	39.00
Homeworks	1	15.00	15.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	2.00	2.00
Others	1	6.00	6.00
Final Exams	1	2.00	2.00
Total Work Load			94.00
Total work load/ 30 hr			3.07
ECTS Credit of the Course			3.00

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	5	4	3	2	3	0	3	0	3	3	3	0	0	0	0	0
ÖK2	5	4	3	2	3	0	3	0	3	3	3	0	0	0	0	0
ÖK3	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	3	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