ESOGÜ Electrical Engineering Department

COURSE CODE: 151222126- 151242126 **COURSE TITLE:** Engineering Graphics

Semester	**Weekly Hours**		**COURSE**			
	Theoretical	**Practical**	**Credits**	**ECTS**	**Type**	**Language**
2	1	2	2	4	Compulsory (x) Elective ( )	Turkish ( ) English (x)

Write the credit (for non-credit courses weekly hours) below (If necessary distribute the credits.).

Math and Basic Science	**Electrical Engineering** [mark (√) if there is high design content]	**General Education**	**Humanities**
2	( )		

Assessment	**THEORETICAL-PRACTICAL COURSES**			**LABORATORY COURSES**		
Midterm	**Type**	**Number**	**%**	**Activity Type**	**Number**	**%**
	Midterm	1	30	Quiz		
	Quiz	3	30	Lab performance		
	Homework			Report		
	Project			Oral exam		
	Other (……)			Other (……)		
Final		1	40			
Makeup exam (Oral/Written)	Written					

Prerequisites	None
Brief content of the course	Technical drawing, computer aided drawing and design.
Objectives of the course	The aim of the course is to teach students basic structures about computer-aided design and drawings, to draw two and three dimensional projects in computer environment with using AutoCAD program.
Contribution of the course towards professional education	Apply primary techniques in engineering drafting practices and CAD software application, visualize objects from multiview drawings, sketch objects in multiview and pictorial views. Using AutoCAD or other CAD software efficiently for 2-dimensional, 3-dimensional drawings, use pictorial drafting techniques as a tool for communication, visualization, critical thinking, and problem solving.
Outcomes of the course	1- To understand basics of technical drawing. 2- To know standards about technical drawing. 3- To create technical drawings by using AutoCAD. 4- Modeling. 5- To develop technical drawing project.
Textbook of the course	Omura G., "Herkes için AutoCAD 2007 ve AutoCAD LT 2007", 2007, ISBN: 9752978461
Other reference books	
Required material for the course	Computer, projector.

WEEKLY PLAN OF THE COURSE	
Week	**Topics**
1	Multiview sketching.
2	Orthogonal, sectional, and auxiliary views
3	Projections
4	Assembly drawings
5	Drawings standards, dimensioning, tolerancing and fits
6	What is Computer-Aided Design (CAD)?
7	Properties of CAD programs
8	Midterm
9	Midterm
10	Running AutoCAD, AutoCAD screen, entire window
11	Toolbars, Zoom operations, AutoCAD commands, coordinates
12	Layer operations, making layers, adding objects to layers, general controls of layers.
13	Dimensioning, Text operations, Block operations.
14	Three-dimensional modeling, wire-frame modeling, surface modeling, solid modeling.
15,16	Final

NO	OUTCOMES OF THE PROGRAMME	4	3	2	1
1	Adequate knowledge of mathematics, science and Computer Engineering; ability to practice theoretical and practical knowledge of these areas into modeling and solving problems of Computer Engineering		**X**		
2	Ability to identify complex engineering problems in Computer Engineering and related fields, for this purpose having skills to formulate, select and apply appropriate methods.				**X**
3	Having skills to apply modern design methods to design a complex system, equipment or product that should work under realistic conditions and constraints and satisfy specific requirements concerning the Computer Engineering.		**X**		
4	Having skills to develop, select and apply modern techniques and tools needed for Engineering applications, skills to use information technology effectively.		**X**		
5	Skills to design and conduct tests, collect data, analyze results, and interpret data for the experimental investigation of Computer Engineering problems				**X**
6	Ability to function effectively as an individual and as a member of teams within the discipline and in multidiscipline areas.				**X**
7	Communicating effectively in oral and written form in Turkish and one foreign language.				**X**
8	Awareness of the necessity of lifelong learning, access to information, monitoring developments in science and technology and the ability to self-renewing				**X**
9	Understanding of professional and ethical responsibility				**X**
10	Information on project management, change management and risk management practices, awareness on entrepreneurship, innovation and sustainable development.				**X**
11	Information about universal and societal effects of engineering applications on health, safety and environment; awareness of the legal consequences of engineering solutions.				**X**

Scale for assessing the contribution of the course to the program outcomes:

4: High **3: Medium** **2: Low** **1:None**

Name of Instructor(s): Yıldıray ANAGÜN

Signature(s):

Date: