	Course name: EE208 Signals and Systems	Department: Electrical and Electronics Engineering	Semester
			4
	Methods of Education		Credit (ECTS)
	Lecture	Study Time	Homework	Exam (incl. Prep.)	Total	5
	28	50	35	35	148	

Language	English
Compulsory/Elective	Compulsory
Prerequisites	MATH102
Course Contents	Continuous time signals, Systems, Discrete time systems, Convolution, Differential equation systems, periodical signals, Fourier series, Fourier transform, Discrete time Fourier series and transform, Continuous and discrete time filters, Sampling theorem, z-transformation.
Course Objectives	This course is an introduction to the basic concepts and theory of analog and digital signal processing. The background assumed is calculus, experience in complex numbers, and some knowledge on differential equations. Technology: In addition to the graphing calculators, students are required to use MATLAB and other computer software packages.
Learning Outcomes and Competences	After taking this course, students will be able to understand: Discrete and continous time signals and systems, transform techniques to analysis the LTI systems, Applications.
Textbook and /or References	Oppenheim, Alan V., and A. S. Willsky. Signals and Systems. Prentice Hall, 1982.

Assessment Criteria		If any, mark as (X)	Percentage (%)
	Midterm Exams	X	20
	Quizzes	X	10
	Homeworks	X	15
	Projects	X	30
	Term Paper		
	Laboratory work		
	Other		
	Final Exam	X	25
Instructors	Prof. Dr. Hüseyin Canbolat		

Weekly Schedule

Week	Subject
1	Basic continuous and discrete time signals
2	Convolution integral and sum
3	LTI systems, differential and difference equation systems
4	Continuous time Fourier series
5	Continuous time Fourier transform
6	Fourier transform of periodic signals, Parseval's theorem
7	Laplace Transform
8	Laplace Transform
9	**Mid-term Exam**
10	Discrete time LTI systems and convolution
11	Discrete Time Fourier Series
12	Discrete Time Fourier Transform
13	Sampling and reconstruction
14	Z-transformation
15	Discrete time filter design, Project, Homework