



**KOÇ  
ÜNİVERSİTESİ**

**ELEC 201**

**Signals and Systems**

**Lecture 0 – Introduction to ELEC 201**

Dr. Ertuğrul Başar

Department of Electrical and Electronics  
Engineering

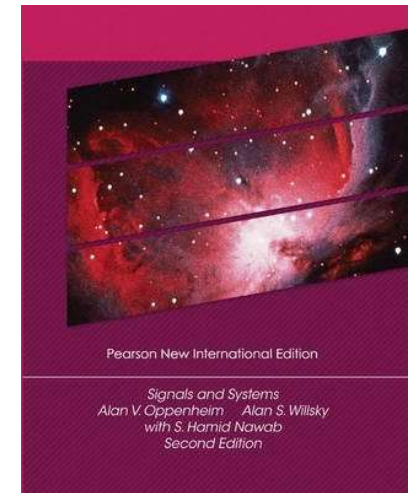
Fall 2018

# Course Information

- Instructor  
Associate Professor (Doç. Dr.)  
Ertuğrul Başar  
[ebasar@ku.edu.tr](mailto:ebasar@ku.edu.tr) – ENG 168
- Meeting Information:  
SNA B172 – Mo We 08:30-09:45 (two 75-min lectures)
- Lecture notes will be available weekly on the course website.  
Please download and bring them with you to take further notes.
- Course website: Blackboard
- Problem Session (*on selected weeks*):  
SNA B119 – Mo 17:30-18:45  
Office Hours: We 10:00-11:00

# Prerequisites and Resources:

- Strong motivation, basic calculus and ordinary differential equations.
- MATLAB is the programming environment.
- **Text Book:** Signals and Systems, 2nd Int. Edition, A. V. Oppenheim, A. S. Willsky, S. H. Nawab, Pearson Education, 2013.
- **Recommended Books:**
  - Signals and Systems, Simon Haykin and Barry Van Veen, 2nd Edition, John Wiley, 2003.
  - Schaum's Outlines, Signals and Systems, Hwei Hsu, 1995.
  - Signals and Systems Using Matlab (2nd Ed.), L. Chaparro Elsevier, 2014.



# What you'll learn in ELEC 201?

- Signals and Systems
- Linear Time-Invariant Systems
- Fourier Series Representation of Periodic Signals
- The Continuous-Time Fourier Transform
- The Discrete-Time Fourier Transform
- Discrete Fourier Transform and Filtering
- Sampling
- The Laplace transform

# Evaluation Methodology

<b>Item</b>	<b>%</b>	<b>DATE</b>
Midterm Exams	50	Week 7 & Week 13
HWs & Quizzes	10	
Final Exam	40	TBA

- TAs (to be announced later)

Asking questions is the key to learning !!!

# Academic Honesty

- Academic dishonesty is a serious violation of the trust upon which an academic community depends.
- The students must submit their own work in all exams, quizzes, and homeworks.
- In exams and quizzes, all forms of information exchange and talking between students is forbidden. Use of unauthorized material during an exam is an act of academic dishonesty.
- In homeworks, working together, showing complete or incomplete solutions to your friends, and sharing or transfer of files is strictly prohibited.
- You can consult to your TA if you have difficulty in understanding some material.
- Assisting someone else to engage in an act of academic dishonesty is also considered as an act of academic dishonesty.
- Students who are involved in any act of academic dishonesty will be sent to the Disciplinary Committee immediately, without any warning. The penalties may range from failing the class, to expulsion from the University.

WEEK	Course Outline (Tentative)	DATE
1	Introduction to ELEC 201 (Lecture 0) & Introduction to Signals (Lecture 1)	17-19/9
2	Signals (Lecture 2) & Systems (Lecture 3) – PS 1	24-26/9
3	Linear Time-Invariant (LTI) Systems (Lecture 4) – PS 2	1-3/10
4	Properties of LTI Systems (Lecture 5) – PS 3	8-10/10
5	Continuous-Time Fourier Series (Lecture 6 & Lecture 7)	15-17/10
6	Discrete-Time Fourier Series (Lecture 8) – PS 4	22-24/10
7	Midterm Exam 1 (We) (No Lecture on Mo – 29 Ekim Cumhuriyet Bayramı)	31/10
8	Continuous-Time Fourier Transform (Lecture 9)	5-7/11
9	Properties of Continuous-Time Fourier Transform (Lecture 10) – PS 5	12-14/11
10	Discrete-Time Fourier Transform & Properties (Lecture 11& Lecture 12)	19-21/11
11	Intro. to DFT, Intro. to Filtering (Lecture 13 & Lecture 14) – PS 6	26-28/11
12	Sampling (Lecture 15)	3-5/12
13	Midterm Exam 2	10/12
14	Laplace Transform (Lecture 16) – PS 7	17-19/12