

## System and Signals

### ELEG 387V\_Online Course Syllabus

**Term:** Summer 2022

**Lecture Time and Location:** Online

**Instructor:** Dr. Silke Spiesshoefer

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Office Hours: By Appointment

#### Course Material

**Textbook:** “Signals and Systems Using Matlab” by Luis F. Chaparro, 2<sup>nd</sup> ed. [ISBN: 978-0-12-394812-0].

**Software:** MatLab

**Reference (Optional):** S.S. Soliman, M.D. Srinath, Continuous and Discrete Signals and Systems, 2<sup>nd</sup> Ed., Prentice Hall, 1998.

<b>Grading:</b>	Homework:	15%	<b>Grading Scale:</b>	90-100%	A
	Quizzes:	15%		80-89%	B
	Mid Term Exam:	35%		70-79%	C
	Final Exam:	35%		60-69%	D
				<60%	F

**Prerequisites:** Calculus III, Differential Equation (Co-requisite), Electrical Circuits I or equivalent

- Knowledge of integration, differentiation, and differential equations
- Knowledge of Algebra
- Familiar with basic circuit analysis

**Learning Objectives:** Continuous signals and systems, linear system analysis, convolution, Laplace transform, Fourier series, Fourier transform, discrete-time signals and systems

**Exams:** There will be a Midterm exam and a Final exam. All exams will be given online. The exam is open book and notes. You can bring a calculator. You will be given two hours to take the exam.

**Quizzes:** Quizzes will be given online through Blackboard as the taught material progresses.

**Homework:** Homework problem sets will be given for each module. All assignments will be completed on Blackboard. Once the assignment time is closed, no late homework will be accepted. Unless otherwise noted, students may work together on homework, provided that they do not copy and submit another’s work.

**Blackboard:** All course related materials, such as slides, homework assignments, links, announcements, etc. will be posted on Blackboard. Please check regularly.

**Blackboard Collaborate Ultra** will be used for course lecture and discussion.

**Academic Integrity Policy:** “As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail.”

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### **Tentative Schedule**

- Week 1: Introduction
- Week 2: Continuous-Time Signals
- Week 3: Continuous-Time Systems
- Week 4: Fourier Series
- Week 5: Review and Midterm Exam
- Week 6: Fourier Transform
- Week 7: Laplace Transform
- Week 8: Discrete-Time Signals and Systems