

Department of Electrical Engineering
University of Arkansas



ELEG 3124 SYSTEMS AND SIGNALS

Ch. 0 Preface

Dr. Jingxian Wu
wuj@uark.edu

GENERAL INFORMATION

- **Instructor: Dr. Jingxian Wu**
 - Email: wuj@uark.edu
 - Phone: (479) 575-6584
 - Office Bell 3168
- **Office Hours**
 - Tu. Th. 11:00 – 12:00
 - By appointment
- **Lecture Schedule**
 - MEEG 212
 - Tu. Th. 12:30-1:45
- **Lab Schedule**
 - Bell 3135 or Bell 3139

TEXTBOOK AND REFERENCES

- **Required Text Books**

- Luis F. Chaparro, *Signals and Systems Using Matlab*, Academic Press, 2010. ISBN :978-0-12-374716-7.

- **Required Software**

- Matlab
- Free for all UofA students <https://its.uark.edu/help/ta/matlab-student-setup.php>
- Available on most lab computers and also <http://vlab.uark.edu>

- **References (optional)**

- S.S. Soliman, M.D. Srinath, *Continuous and discrete signals and systems*, 2nd Ed., Prentice Hall, 1998.

COURSE INFORMATION

- **Pre-requisite:**
 - Calculus I, II, and III, Differential Equation (co-requisite)
 - Electrical Circuits I
- **This course involves heavy mathematical derivations**
 - It is a Mathematics course.
 - Integration, differentiation, differential equation, etc.
 - Examples with detailed step-by-step derivation will be given during lecture
 - A great opportunity for you to review and practice your Math skills!
 - A large number of examples will be given in class – **It's ESSENTIAL for you to repeat all the examples by yourself after class.**
 - Homework solutions will be posted after the due dates.
 - You are encouraged to **study in groups** on homework assignments.
 - **Use the office hours of the TA.**
- **Teaching format**
 - Slides
 - Examples
 - Exercises
 - Homework assignments (problems, software)
 - Labs

TENTATIVE SCHEDULE

- Week 1 (8/21, 8/23): Ch.1 Continuous-Time Signals
- Week 2 (8/28, 8/30): Ch. 1 Continuous-Time Signals
- Week 3 (9/4, 9/6): Ch. 2 Continuous-Time Systems
- Week 4 (9/11, 9/13): Ch. 2 Continuous-Time Systems
- Week 5 (9/18, 9/20): Ch. 2 Continuous-Time Systems
- Week 6 (9/25, 9/27): Ch. 4 Fourier Series (**Test 1 on 9/27**)
- Week 7 (10/2, 10/4): Ch. 4 Fourier Series
- Week 8 (10/9, 10/11): Ch. 4 Fourier Series
- Week 9 (10/16, 10/18): Ch. 5 Fourier Transform (Fall break on 10/16)
- Week 10 (10/23, 10/25): Ch. 5 Fourier Transform
- Week 11 (10/30, 11/1): Ch. 5 Fourier Transform (**Test 2 on 11/1**)
- Week 12 (11/6, 11/8): Ch. 3 Laplace Transform
- Week 13 (11/13, 11/15): Ch. 3 Laplace Transform
- Week 14 (11/20, 11/22): Ch. 3 Laplace Transform (Thanksgiving on 11/22)
- Week 15 (11/27, 11/29): Ch. 3 Laplace Transform
- Week 16 (12/4, 12/6): Ch. 6 Discrete-Time System (dead day: 12/7)
- **Test 3 in the final week** (week of 12/10, date and time TBD)

GRADING POLICY

- **Grades Percentage**

- Test 1 22%
- Test 2 22%
- Test 3 22%
- Homework 14%
- Lab 14%
- Quiz 6%

- **Grades**

- A: $90 \leq \text{grade} \leq 100$
- B: $80 \leq \text{grade} < 90$
- C: $70 \leq \text{grade} < 80$
- D: $60 \leq \text{grade} < 70$
- F: $0 \leq \text{grade} < 60$

GRADING POLICY

- **Due dates for homework and lab report will be strictly enforced. Late submission **within one week after due** will receive a **20% deduction; no credit if submitted one week past due.****
- **Homework and lab reports should be submitted directly on blackboard**
- **There will be NO make up for quizzes.**
- **If for some legitimate reason (sickness, death in the family, etc.), you cannot take an exam on the scheduled day, you must notify the instructor **prior** to the exam.**

ONLINE RESOURCES

- **Course Home Page**

- <https://wuj.hosted.uark.edu/teaching/eleg3124/eleg3124.html>
- All the course related materials, such as slides, homework assignments, lecture notes, homework solutions, links, announcements, etc., will be posted on this website.
- Please check the webpage regularly (**at least once per week**) for update.
- Blackboard

ADDITIONAL ISSUES

- **Academic Honesty**
 - Each University of Arkansas student is required to be familiar with and abide by the University's 'Academic Integrity Policy' which may be found at <http://provost.uark.edu/>
 - Any kind of activities related to academic dishonesty (copying homework, lab report, code, plagiarism, etc.) will be dealt with.
 - If you are not sure about plagiarism, please contact the instructor.
- **Questions are welcome in my class**
 - You are very welcome to raise any question related to course materials.
 - Please feel free to stop me at any time if you have any question.
 - You can also ask me question via email or during office hours.
- **To respect your fellow students as well as the instructor, please turn off or silencing your cell phone.**
 - **No text messaging or web surfing!**
- **BE ON TIME!**
- **Have Fun!**