



ELE 351 – System & Signal Analysis

Fall 2021

- **Lectures:** MonWed 12:45pm–2:05pm, 3-216 SciTech
- **Instructor:** Makan Fardad
Office: 3-189 SciTech
Email: makan@syr.edu
Office hours: MonWed 11:00am–12:00pm
- **URL:** http://ecs.syr.edu/faculty/fardad/index_ELE351.htm
- **Recitations:** There will be no recitations for this course.
- **Prerequisites:** ELE 251, MAT 296, working knowledge of basic engineering mathematics (ordinary differential equations, complex variables), familiarity with Matlab, and most importantly, *willingness to learn*.
- **Course Topics:** Introduction to signals and systems; system linearity and time invariance; impulse response and convolution; Fourier series and Fourier transform; frequency response and filters; signal sampling and reconstruction; discrete time signals and systems; engineering applications.
- **Course Objectives:** Introduce analysis of signals and systems using frequency domain techniques and demonstrate its relevance to real life applications. The course includes computer assignments in MATLAB.
- **Textbook (Required):** B.P. Lathi, *Signal Processing & Linear Systems*. Oxford University Press, 2000.
- **Lecture Notes:** Instructor’s in-class lecture notes will be scanned and posted on the class website within (approximately) one week from the corresponding lecture.
- **Grading Policy:** Your overall grade will be determined based on the following distribution.

| | | |
|-------------|---------------------------------------------------------------------------|-----|
| Attendance: | Taken randomly and through collected quizzes | 15% |
| Homework: | Will be assigned, & solutions provided, but not collected/graded | 0% |
| Quizzes: | Will be assigned in class, collected & solutions provided, but not graded | 0% |
| Midterm 1: | Wednesday, Oct 06 | 25% |
| Midterm 2: | Wednesday, Nov 10 | 25% |
| Final: | Wednesday, Dec 08, 12:45pm–2:05pm; comprehensive | 35% |

Your overall grade for this course will *not* depend on how well other students have done. It is possible (in fact, much desired) for every student to get an A. Numerical scores, rounded to whole numbers, will be converted to letter grades as follows:

| Overall score (%) | Letter grade |
|-------------------|--------------|
| 91- | A |
| 86-90 | A- |
| 81-85 | B+ |
| 76-80 | B |
| 71-75 | B- |
| 66-70 | C+ |
| 61-65 | C |
| 56-60 | C- |
| 46-55 | D |
| 00-45 | F |

- Academic Integrity:** Syracuse University’s Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. Syracuse University students are required to read an online summary of the University’s academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice. The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level.

All academic integrity expectations that apply to in-person quizzes and exams also apply to online quizzes and exams. In this course, all work submitted for quizzes and exams must be yours alone. Discussing quiz or exam questions with anyone during the quiz or exam period violates academic integrity expectations for this course. Using websites that charge fees or require uploading of course material (e.g. Chegg, Course Hero) to obtain exam solutions or assignments completed by others and present the work as your own violates academic integrity expectations in this course.

- Disability-Related Accommodations:** Syracuse University values diversity and inclusion; we are committed to a climate of mutual respect and full participation. There may be aspects of the instruction or design of this course that result in barriers to your inclusion and full participation in this course. I invite any student to contact me to discuss strategies and/or accommodations (academic adjustments) that may be essential to your success and to collaborate with the Center for Disability Resources (CDR) in this process. If you would like to discuss disability-accommodations or register with CDR, please visit Center for Disability Resources <https://disabilityresources.syr.edu/>. Please call (315) 443-4498 or email disabilityresources@syr.edu for more detailed information. The CDR is responsible for coordinating disability-related academic accommodations and will work with the student to develop an access plan. Since academic accommodations may require early planning and generally are not provided retroactively, please contact CDR as soon as possible to begin this process.

- **Religious Observances Policy:** SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MyS-lice/StudentServices/Enrollment/MyReligiousObservances/AddaNotification from the first day of class until the end of the second week of class. For more information on SU's religious observance policy, see http://supolicies.syr.edu/emp_ben/religious_observance.htm.
- **Classroom and Lecture Etiquette:**
 - Do not be late. Late entry is distracting and disruptive for both the students and the instructor. Repeated late entry communicates a lack of respect for the class and consideration for others.
 - Please silence cell phones, as they interrupt the class. Text messaging is not permitted.
 - Do not carry on side conversations. They are distracting and disruptive. Extend the instructor and other students the courtesy of listening, just as you would have them listen when you speak.
 - If you miss class, recognize that it is your responsibility to learn about announcements and obtain handouts, assignments, etc, from your classmates or from the instructor during normal office hours.
 - At all times, students should conduct themselves as professionals, with courtesy and respect for those around them.