San Diego State University  
Department of Electrical and Computer Engineering  
EE-410-02: Signals and Systems  
Fall 2016

Instructor:  
Dr. Ashkan Ashrafi  
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Home Page: http://jason.sdsu.edu/~ashrafi/  

Course Info:  
Number of units: 3  
Textbook: "Continuous and Discrete Time Signals and Systems", by M. Mandal & A. Asif  
Schedule: MW 5:00PM – 6:15PM  
Location: AH-3177  
Prerequisite: EE-300 & EE-310  
Midterm: November 9th, 2016  
Final: December 16th, 2016 6:00PM – 8:00PM

Course Coverage:  
Chapters 1 through 6 and chapter 8 of the textbook will be covered in the course. The following list shows the materials topics.  

1. Introduction to complex numbers and phasors  
2. Continuous-Time and Discrete-Time signals and signal manipulations  
3. Continuous-Time Linear Time Invariant (LTI) systems and convolution  
4. Fourier series representation of signals  
5. Fourier transform  
6. Analysis of LTI systems by Fourier transform  
7. Laplace transform  
8. Analysis of LTI systems by Laplace transform and transfer functions  
9. Introduction to sampling

Objectives:  
This course provides the students with the essential mathematical background in signals and systems useful in all areas of Electrical & Computer Engineering particularly in the area of Digital Signal Processing, Control Systems and Robotics and Communication Systems. By the end of the semester, students will be able to:  
1. Characterize and manipulate signals utilizing commonly accepted terminology  
2. Analyze linear time-invariant systems in the time domain  
3. Find the frequency contents of signals by calculating their Fourier series and Fourier transform  
4. Determine the Laplace transform of signals, find the transfer function of LTI systems in the Laplace domain and analyze LTI systems using transfer functions
**Course Policies:**

1. Students who have not met the prerequisite courses will be dropped from the course in the second week of the semester.
2. Attendance will be taken randomly during the semester. **One credit point will be deducted from the final overall weighted grade for each missed class session.**
3. Students’ conduct, which disrupts the learning process, e.g. cell phone ringing, shall not be tolerated and may lead to disciplinary action and/or removal from class.
4. Assignments and announcements will be given via the Blackboard.
5. If you want to use your laptop in the class, you MUST sit at the last row of the classroom.
6. Almost every other week a homework assignment will be given via the course website.
7. No emails will be replied during weekends except the weekends before midterm and final exams.
8. Emails that require writing mathematical equations will not be replied. If you have question involving mathematical equations, you should come to my office during my office hours.
9. No late homework assignment and project will be accepted.
10. The lowest homework grade will be dropped.
11. Quizzes will be regularly given based on the materials that have already been covered.
12. **No make-up quiz will be given.**
13. The lowest quiz grade will be dropped.
14. All exams (midterm and final) are closed book and closed note.
15. Calculator is not allowed in the exams (midterms and final) and quizzes.
16. To make up a midterm or the final exam, you need to have an acceptable excuse, such as family emergency with supporting documents to prove it. You should notify me **before the exam by sending me an email.** No excuse will be accepted after the exam.
17. A make-up exam may be different and generally more difficult than the scheduled exam.
18. **The midterm and final exam papers will be graded by both instructors of sections 01 and 02.**
19. The final grade will be determined based on the overall performance of the class.
20. Emails regarding the exam grades will not be replied.
21. This syllabus is subject to change. If you are absent from class, it is your responsibility to check on announcements made while you were absent.

**Academic Misconduct:**

Academic misconducts such as cheating, plagiarism falsifying records and data, etc., will not be tolerated. Students who cheat will receive an "F" for the course grade and will be reported to the Center for Student Rights and Responsibilities. For further information visit the website of Center for Student Rights and Responsibilities at: [http://csrr.sdsu.edu](http://csrr.sdsu.edu).

**Grading Percentage:**

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<th>Component</th>
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<tr>
<td>Homework</td>
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<td>Quizzes</td>
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<td>Midterm</td>
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