“Signals & Systems”

Instructor: Byung-Jun Yoon  
Email: bjyoon@ece.tamu.edu  
Tel: 845-6942  
Office: Zachry 237F  
Office Hours: TBD

Location: Zachry 223A

Time: Tue/Thu 09:35AM–10:50AM

Credit: 3

Course Description:

This is an introductory course on signals and systems. The course will cover: fundamental concepts regarding continuous-time and discrete-time signals and systems; time domain characterization of linear time-invariant (LTI) systems; Fourier analysis; filtering; sampling; modulation techniques for communication systems.

Prerequisites: ECEN 214, MATH 308, or equivalent.

Required Textbook:


Academic Integrity:

Aggie Code of Honor (http://www.tamu.edu/aggiehonor)  
“Aggies do not lie, cheat, or steal nor do they tolerate those who do.”

Students are expected to attend all classes, complete assignments on time, and participate fully in class discussions and projects. Violations will be handled in accordance with the Texas A&M University Regulations governing academic integrity.

American with Disabilities Act:

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Services, in Cain Hall, Room B118, or call 845–1637. For additional information visit http://disability.tamu.edu
Classroom Behavior:

Please be courteous to your fellow classmates and the instructor. Please turn off your cell phones or set them to silent mode in the classroom.

Grading:

- Homework & Quiz : 20%
- Midterm exam 1 : 25%
- Midterm exam 2 : 25%
- Final exam : 30%

Course Policies:

1. **Homework Submission:**
   Homework solutions should be submitted before the class on the due date.

2. **Late homework policy:**
   On time (100%), same day after class (90%), next day (80%), 2 days (70%), 3 days (60%), 4 days (50%), 5 days or more (0%)

3. **Collaboration:**
   You are encouraged to discuss the assigned problems/projects with your classmates. But you are not allowed to talk about the final solution itself or to show your solution to others. Every student has to prepare his/her solution independently.

4. **Preparing the final solution:**
   Please write your solution in a clear, readable, and concise form. Every answer should be fully justified.

Course Topics:

<table>
<thead>
<tr>
<th></th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overview</td>
</tr>
<tr>
<td>2</td>
<td>Basic signal properties</td>
</tr>
<tr>
<td>3</td>
<td>Basic system properties</td>
</tr>
<tr>
<td>4</td>
<td>Linear Time-Invariant (LTI) Systems</td>
</tr>
<tr>
<td>5</td>
<td>Fourier Series</td>
</tr>
<tr>
<td>6</td>
<td>Fourier Transform</td>
</tr>
<tr>
<td>7</td>
<td>Sampling</td>
</tr>
<tr>
<td>8</td>
<td>Filtering</td>
</tr>
<tr>
<td>9</td>
<td>Applications</td>
</tr>
</tbody>
</table>

Course Website:

Please visit the following course website frequently for important announcements and course materials: http://www.ece.tamu.edu/~bjyoon/ecen314-fall12/