# FALL 2017: ELEC 3400: COMMUNICATION SYSTEMS

**T Th 11:00 am – 12:15 pm  Broun 235**

**Instructor:**  Prof. J.K. Tugnait  313 Broun,  4-1846,  tugnajk@eng.auburn.edu  
Office Hours: MW 11:00am – 11:50 am; 3:00 – 4:00 pm;  
e-mail for appointment at other times.

**Prerequisite:**  ELEC 3800.

**Textbook:**  S. Haykin and M. Moher, *Communication Systems*, 5th Ed.,  

**Reference 1:**  B.P. Lathi and Z. Ding, *Modern Digital & Analog Communication Systems*,  

**Reference 2:**  J.D. Gibson, *Principles of Digital & Analog Communications*, 2nd Ed.,  

**Grading Basis:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Date</th>
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<tbody>
<tr>
<td>Homework</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Test I</td>
<td>30%</td>
<td>(Oct. 5, 2017)</td>
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<tr>
<td>Test II</td>
<td>30%</td>
<td>(Nov. 16, 2017)</td>
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<tr>
<td>Final</td>
<td>30%</td>
<td>(Dec. 13, 2017, Wed. 12:00 noon)</td>
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**Attendance Policy:** *Class attendance and participation is required. Unexcused absences from more than 3 class sessions will receive an F in the course.* For an absence to be excused, the student must present an official excuse obtained from the Engineering Student Services Office no later than 1 week after the absence. For more information, see the Academic regulations in the Tiger Cub.

**Homework:** will be assigned periodically. Solutions to the homework problems will be discussed in class. **Late homework will not be accepted.** The lowest homework grade will be dropped from your average.

## TEXT COVERAGE (in listed order)

- Chapter 2 & 5  Background ELEC 2120 and ELEC 3800 material —— READING ASSIGNMENT
- Chapter 7  Secs. 7.1-7.6, 7.8, 7.9: Sampling and PCM
- Chapter 8  Baseband digital transmission
- Chapter 9  Digital band-pass transmission techniques (parts)
- Chapters 3 & 4  Amplitude and angle modulation

**ELEC 3400. COMMUNICATION SYSTEMS (3).** Lec. 3. Pr., ELEC 3800. Pulse code modulation, line coding, information rate, equalization, amplitude modulation, angle modulation, noise in communication systems.