Class Objective:
This class intends to foster students with the basics of telecommunications and telephone networks (wireline and wireless). Additionally, at the end of the semester, successful students will be equipped with a broad range of fundamental telecommunication topics for more advanced studies and researches. Prerequisite: EE 4330. Topics will include (in no priority) of the followings:

- Switching and transmission systems
- Circuit and packet switching
- Call processing
- Queuing theory and applications
- OSI-layered reference architecture
- Wireless networks and propagation properties
- Wireless 2.5/3G air interfaces (GSM/GPRS/Edge, CDMA/1xRTT, UMTS)
- Wireless systems design and RF deployment
- Mobile connectivity technologies (Bluetooth, WLAN, WiMAX)

Prerequisite:
EE 4330 - FUNDAMENTALS OF TELECOMMUNICATION SYSTEMS (3-0) 3 hours credit. Examines analog and digital communication techniques including amplitude modulation, frequency modulation, and pulse code modulation. Time-domain and frequency domain multiplexing. Analog and digital noise analysis, information theory. Design of communication systems.

Instructor:
Tony Wong, Ph.D, P.E.
wongtony168@hotmail.com

GTA:
Feng Liu
fengliu@uta.edu

Class Logistics:
Thursday 6:15 – 9:00 pm
Room 109, NH

Office Hours and Location:
Thursday 9:00 – 9:30 pm
Email for appointment

GTA Office Hours:
Thursday: 2:40-5:40pm
Friday: 10am-12pm

GTA Office:
Room 254-C, NH
Grading Policy:
Homework assignments (weekly): 10%
1st Test (open book, Sept. 29, 1.5 hr.): 25%
2nd Test (open book, Oct. 27, 1.5 hr.): 25%
Final (open book comprehensive, 2.5 hr.): 40% (optional)
Total: 100%

Text:

Alberto Leon-Garcia, Indra Widjaja, Communication Concepts and Keys Architectures –
0-07-242349-8.

Other Suggested References:
1. IEEE Communications Magazine (monthly).
4. Tero Ojanpera, Ramjee Prasad, Wideband CDMA for 3rd Generation Mobile

Further Details on Class Policy:

1. Homework is due by the end of class on assigned days.

2. Unless receive prior approval by instructor, grade will be reduced by 10% for
each day of late submission. No homework will be accepted after 1 week from
the due date. Cooperation in completing homework between students is
acceptable. However, identical plagiarism of homework assignments will not be
tolerated.

3. Academic dishonesty in completing homework, tests, projects, and final
examination is against the policy of UTA and will result in getting an “F” for the
course. Students taking the class from remote locations can take their tests at
their premises provided that they are coordinators at site to administer the tests.
Final examination can only be taken at the campus.

4. Students taking EE 4333 will be curved with fellow students in EE 4333.
Students taking EE 5363 will be curved with the fellow students taking EE 5363.
independent of sections. Grading standard for students taking EE 4333 will also be more generous than students taking EE 5363. At the completion of the 2nd mid-term examination, the grade distribution (for both EE 4333 and EE 5363) will be targeted as follows:

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<th>A</th>
<th>B</th>
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<td>30 - 35%</td>
<td>45 - 50%</td>
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5. No make-up tests, examinations will be allowed except under unusual circumstances. However, it is understandable that unanticipated events, such as out-of-town meeting / travel / job interview might happen during the semester. Please arrange with the instructor for approval.

6. After every test, statistical properties (mean $\mu$, and standard deviation $\sigma$) will be provided for you to assess your relative standing in the class. The rough ranges below could be used as guidance. $P$ is your total percentage for the semester.

- A if $P > 80$
- B if $65 \leq P \leq 80$
- C or below if $P < 65$