

ECE 243A/WINTER 2008: GUIDELINES AND SCHEDULE FOR TEAM PROJECT

Form teams of three. Choose a standard or a paper. Study it and prepare a powerpoint presentation (10 minutes per team member, 30 minutes total).

Goal: To clearly convey the channel characteristics, the modulation format, coding strategy, and medium access protocol (if it is a multiuser system).

You should seek to not only describe the system, but also to critically examine the design choices and give your opinion on why you think these were made. YOU WILL BE GRADED BASED ON THE INSIGHTS YOU GIVE.

Presentation guidelines: Use pictures rather than words to the extent possible, do not read off slides, practice your script several times. YOU WILL BE GRADED BASED ON QUALITY OF SLIDES AND DELIVERY.

POSSIBLE STANDARDS/SYSTEMS: You are totally responsible for gathering the information required for your project.

Digital cellular: GSM, EDGE

Digital cellular: CDMA 2000

IEEE 802.11b

IEEE 802.11g or a

WiMax (IEEE 802.16)

Bluetooth (IEEE 802.15.1)

Zigbee (IEEE 802.15.4)

Ultrawideband: WiMedia Alliance
(one of the contenders in the stalled IEEE 802.15.3a standardization process)

Compact disc/DVD (optical storage)

USB, Firewire

Hard disk (magnetic recording)

Fiber optic communication

Schedule:

January 17: Send instructor an email (one per team) listing team members, and listing three project topics in order of preference (you may wish to gain a little familiarity with the topic by doing some quick searches before choosing your topics)

January 21: In-class discussion to finalize project topic for each team, resolving conflicts with instructor as arbiter

January 21-28: Each team does preliminary research into their topic, tracking down sources and planning out the project

January 28: One page write-up from each team on their project topic, discussing (a) what you plan to present, (b) what are the sources you plan to use. Both of these can be revised later.

Week of March 10: Project presentations