ECE 582:
Electrical and Computer Engineering Design I

Class Overview

Prof. Steven Bibyk

TA: Mark Haffner

Goals for this class

- Review Syllabus
  - Texts:
    - <u>Pocket Book of Technical Writing for Engineers & Scientists</u>, Leo Finkelstein, McGraw-Hill;
    - <u>Design for Electrical and Computer Engineers</u>, J. Salt & Rothery, Wiley.

  - Activities

- Brief introduction to ECE 582 Projects
- Assignments Due Next Week
- Complete Course Survey Sheet.

Class web page, syllabus, sheets

- On website: http://www.ece.osu.edu/~bibyk/ee582/ee582.htm

- Review syllabus, and the following 582 sheets:

  - TI Design Contest
  - Drew's 682 website (last years contest)

  - Engr. Design vs. Problem Solving
  - Design Swamp
  - Engr. Design Methods by N. Cross

Department of Electrical & Computer Engineering
The Ohio State University

582 Projects

- TI Design Contest – www.ti.com   look at TI eStore and Analog Development boards and EVMs.   Analog contest link on 582 web page.   Engibous (past TI CEO) prize.

- Win10 682 – Bibyk: Use free TI EVMs ($200) in a variety of embedded system projects.

- Win10 682 - Potter: Also using TI contest for Precision Position and Medical Electronics.

- Engr 658/659 Bob Rhoads in Scott Labs needs ECEs for Engr. Collge projects.

- Others

Assignments

Individual Experience Essay - 2 pages.

- Due next week at beginning of class.
- Around one page describing a significant engineering experience you have had.
- Around one page describing a technical artifact. A technical artifact is a design, component, process, or procedure that you produced during your design experience.
- Technical writing requires clear and concise communication. Organization is key.
- Please see Chapter 3 of Finkelstein on 'Technical Definitions'.
- Page limits are fixed.
  - 12pt font double spaced type

Assignments (cont.)

Resume

- Due next week at beginning of class.
- One page limit.

- Create a resume that specifically applies your coursework and/or experience toward a ECE 582 project.
- Look at Finkelstein Chapter 18
- http://career.eng.ohio-state.edu/student/resume-templates.php
  (templates from the College of Engineering's Career office)

Assignments (cont.)

Prepare Individual Presentations

- One slide on a project
- One slide on your background.
- Email your slides to both instructors.
- Name your file with your last name and your section time.

- All three assignments will help us in assigning project groups.
- Other direct input for assigning groups and/or project is very welcome.

Other Contests

- http://www.uvm.edu/~muse/experience/MTT%20Poster%20%2710%20v8.pdf
  - MTT Alive. Projects that (1) required a high level of systems thinking and (2) incorporated a wireless aspect.
    - 19 prizes from $1000 - $250