January 14, 2014

#### ENGR110/210 Perspectives in Assistive Technology



David L. Jaffe, MS

Margaret Mongare

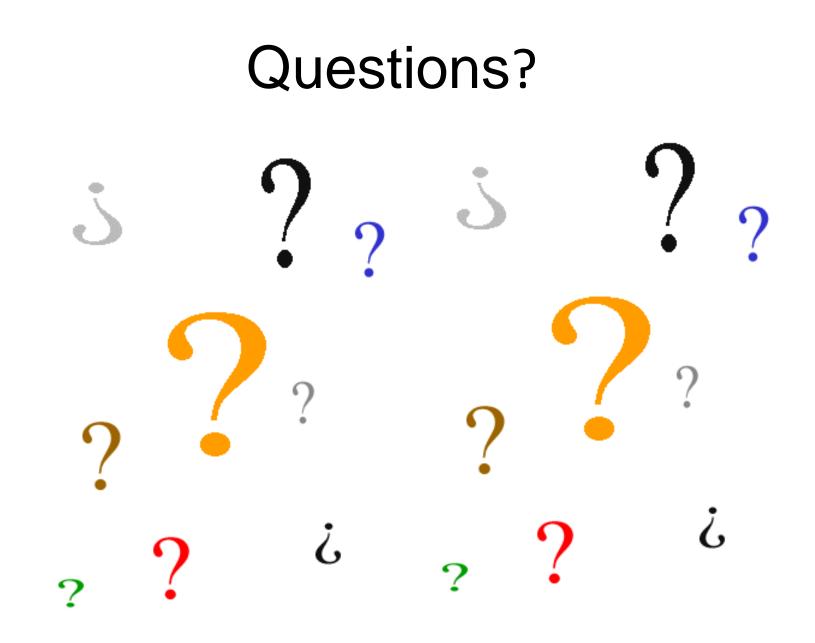




**Professor Drew Nelson** 

Proadpran P. Punyabukkana, PhD





# Today's Handouts, Signup Sheets, and Fillout Forms

For all students:

• Attendance Sheet - important to verify your attendance

For everyone:

Class Session Evaluation Form

January 7, 2014			
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	Perspectives in Assistive Technology - 2014 Class Session Evaluation
Lecture Dia:	Course Overview & Introduction to Assistive Technology - David L. Jutte, MS
Are yo	u an enroled student? 🛛 - Yes
The purpose o Issues -	t the quasisonnaire is to help the leaching learn assess today's class session. Please rate the tollowing
	Epselser speaking volume, understandstäfty, wass of following concepts and argumants, clarity of explanations (pusity of PowerPoint stokes, use of supporting model (videos) and procentation aids (Show&Tell Items) stage presentations, knowledge of tippic, propertientais presentation structure, organization, pace and management of allotted time reportunity for quasitioning and class engagement provided good answers, warmprice, and domostatiations
0000	Content: topic Internat metworks to the broad access of assistive technology presentation of new information sepremarkai evel of destail and technologi content overall value of presented material
Please use the you found the	beak of this sear to snewer the following questions and to provide any additional comments, especially if class search to be alther Q or Ø.
What	are your thoughts and observations stout the entire clean setation? concepts did you especially like or with ware covered in more detail?

# Don't have time to work on a project this quarter?

- Take ENGR110/210 for 1-unit now
- Work on an assistive technology project as independent study later or next Winter Quarter in ENGR110/210 (with approval of your faculty advisor)
- Work on an assistive technology project in CS194 or ME113
- Work on an assistive technology project this summer with SURI (rising ME juniors and seniors)

# **Individual Projects**

- Consider the these options:
  - Assistive technology topic
  - Paper design of an assistive technology device
  - Work of art
  - Aftermarket aesthetic, functionality, usability design
- Interview an individual with a disability. This could include: a family member, a friend, a classmate, a community member attending class, or others that I can suggest
- Report on their lives, challenges they have faced, successes they have achieved, desires for their future, assistive technology they use, and problems they have experienced with them.
- Meet with Dave to agree on project

## **Team Projects**

- Ok for more than one student team to work on some of the popular project suggestions
- Ok for teams to share background tasks
  - Driving to the facility
  - Interviewing project suggestors
- Each team must address a separate problem

# **Team Project Selection**

- Consider project offerings or suggest a student-defined project
  - Freshmen & Sophomores must work in teams of 2 or 3
- Contact project suggestor for more information & access to users
- Check website for students' project preferences
  - <u>http://engr110.stanford.edu/preferences.html</u>
- Inform me of team members (no more than teams of 3) Friday
  - Project name
  - Team members
  - Name of your team
  - Name of your project
  - Name of your device (after it develops a "character")
  - Catch phrase
  - Logo

## **Team Project Selection**

Since there is no guarantee that other students will have the same project interests, you should be prepared to do one of the following:

- convince others to work with you on one of your selected projects
- consider working with another student on a project he/she has chosen
- work on a project you selected as a team of one

#### **Team Member Solicitation**

- Teams looking for an additional member
- Student looking for a team

# **Engineering Design Process**

- Understand the problem (empathy & ethnography) and how it affects the person experiencing it
- Determine the need (a judgment)
- Research what has already been done and why it hasn't fully solved the problem
- Brainstorm many design concepts
- Select a concept
- Fabricate, test, evaluate, quickly repeat
- Report and present results
- Reflect on your experience

# **Engineering Design Process**

- Does not include:
  - Building to another's vision
  - Making incremental improvements
- Utilize project resources and team skills
  - PRL and Room 36 (equipment and TAs)
  - Person who suggested project
  - Course resource people
  - Dave
- Make and justify your project decisions

## **Project Documentation**

- Lab notebooks not required
- Diary for your Individual Reflection
- Photos and short videos strongly suggested
  - Working with a person with a disability
  - Illustrating your design process
  - Prototypes

# Work with Diligence

- What is the most precious resource?
- 7 weeks of class left to work on your projects
- Mid-term in 4 weeks for team projects

# Miscellany



- 1. Weblinks and photos added to lecture webpages
- 2. Student Expectations Suggestion Box
  - <u>http://engr110.stanford.edu/suggestion.html</u>
- 3. PRL Safety Orientation & Shop passes
- 4. Last bits:
  - Remembering names
  - On your team
  - On your side
  - Good grades
  - Ammunition
  - Test questions

## Thursday, Jan 16th



Deborah E. Kenney, MS, OTR/L

The Transdisciplinary Team: Bridging the Gap between Consumers and Products in Rehabilitation Medicine



# Tuesday, Jan 14th

Gayle Curtis - UX Design Consultant

John C. Tang, PhD - Microsoft Research



Need Finding for Assistive Technologies

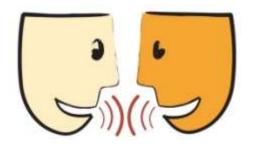
#### Short Break

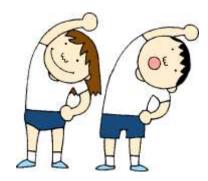




## **Break Activities**

- Stand up and stretch
- Take a bio-break
- Text message
- Web-surf
- Respond to email
- Talk with classmates
- Reflect on what was presented in class









#### Short Break



#### Laptops Galore

