

January 23, 2014

# ENGR110/210

## Perspectives in Assistive Technology



David L. Jaffe, MS



Margaret Mongare



Professor Drew Nelson



Proadpran P. Punyabukkana, PhD

# Questions?







---

# **Communication Matters: The Art and Science of Talking With Patients**



# Framework for the Medical Interview

---

3 functions:

- Building the relationship



- Assessing the patient's problems



- Managing the patient's problems



# 1. Build the Relationship

---

## “PEARLS”

- Partnership
- Empathy
- Apology
- Respect
- Legitimization
- Support



*Coulehan et al, Ann Intern Med  
2001;135:221-7;  
Suchman et al, JAMA 1997;277:678-682.*



# Photo of the Day





# Livescribe Smartpen





# Adapted Race Car



# Adapted Race Car



# Adapted Race Car



# Wheelchair-mounted Robotic Arm



How much do  
you think it  
costs?



# Wheelchair-mounted Robotic Arm



# Wheelchair-mounted Robotic Arm



# Miscellany



1. Make up missed lectures within one week
2. Slides posted on course lecture website as well as recorded audio, weblinks, photos, and video
3. Weekly project progress – by email or meeting
  - Show me your prototypes
4. Community members can help with your projects
5. Interacting with and writing about people with disabilities
  - <http://www.stanford.edu/class/engr110/links.html>
  - Comparable with doctor / patient relationship
6. Anonymous Suggestion Box
  - <http://engr110.stanford.edu/suggestion.html>
7. Project budget



# Tuesday, January 28th

## International Perspectives



- Rights of Persons with Disabilities in Israel: Advancements and Hurdles - Gilat Juli Bachar



- Bookshare International: Making Reading Accessible to All - Kristina Pappas, BA, MBA



- Assistive Technology: When East Meets West - Proadpran P. Punyabukkana, PhD

# Today



Katherine Strausser, PhD

**The Design and Control of  
Exoskeletons for Rehabilitation**

# 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



# Today



Katherine Strausser, PhD

**The Design and Control of  
Exoskeletons for Rehabilitation**



class dismissed



# Miscellany



- Are these considered disabilities?
  - Stress, depression, pyromania, kleptomania, nymphomania, phobias