CDS 484/529
Aural Rehabilitation

Fall 2015

Wednesday 5:10 PM - 8:00 PM
Topics for today’s class

- Course introduction
- Course requirements
- Introduction to AR
Syllabus
Chapter 1: Introduction of AR
Chapter 2: Hearing aids and assistive devices
Chapter 3: CIs & vestibular/tinnitus rehab
Chapters 4-5: Auditory and visual stimuli
Chapter 6: Speech and language issues
Chapter 7: Psychosocial issues
Chapter 8: Educational alternatives
Chapter 9: AR for children
Chapter 10: AR for adults
Chapters 11-12: Case studies
Course Evaluation

- **Undergraduate Students:**
  - Midterm Exam: 85 points
  - Final Exam: 100 points
  - Attendance: 15 points

- **Graduate Students:**
  - Midterm Exam: 60 points
  - Final Exam: 75 points
  - Attendance: 15 points
  - AR lesson plan/presentation: 50 points

(200 points total)
Course requirements

- **Attendance**
- **Classroom behavior**
  - Avoid cell phone use/no texting
  - Active involvement in class discussions
- **Classroom notes**
  - Will be posted on UBLearns one day before each class
Office hours

- Instructor: Mitchell Frye
- Office: 137C Cary Hall
- Phone: 829-5296
- Email: mfrye@buffalo.edu
- Office Hours: Tuesday 2:30 to 4:30 pm by appointment
- TA: Natalie Walsh (nwalsh@buffalo.edu)
- TA Office Hours: by appointment
What is aural rehabilitation?

- Professional efforts that are designed to help someone with hearing loss.

- The key goal: to assist individuals with hearing loss to attain full potential by using personal and other resources to overcome difficulties in communication.
Who needs your help?

- Newborn babies identified at birth with congenital severe to profound bilateral hearing loss
- Teenagers recently identified with rapidly progressive bilateral SNHL
- Teenagers with normal hearing, but having auditory processing difficulty in noisy conditions
- Workers identified with bilateral SNHL due to exposure to intense noise
- Patients with a sudden onset of mild to profound unilateral SNHL
- Seniors with slowly-progressive bilateral SNHL
Terminology of AR

- Aural rehabilitation vs. Audiological rehabilitation

- Audiologic habilitation vs. Audiologic rehabilitation
  - Audiologic habilitation: help a client with hearing loss at birth
  - Audiologic rehabilitation: to restore lost hearing function
Service delivery procedures

- Assessment Procedures
- Management procedures
## Assessment Procedures

<table>
<thead>
<tr>
<th>Assessment (CORE)</th>
<th>Communication status: Impairment and activity limitations</th>
<th>Environmental factors</th>
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<tbody>
<tr>
<td></td>
<td>Auditory</td>
<td>Services</td>
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<td>Visual</td>
<td>Systems</td>
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<td>Language</td>
<td>Barriers</td>
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<td>Manual</td>
<td>Facilitators</td>
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<td>Communication self-report</td>
<td>Acoustic conditions</td>
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<td>Previous rehabilitation</td>
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<td>Overall</td>
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<td>Overall participation variables</td>
<td>Psychological (emotional)</td>
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<td></td>
<td>Social</td>
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<td>Vocational</td>
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<td>Educational</td>
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<td>Related personal factors</td>
<td>Personality</td>
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<td>IQ</td>
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<td>Race</td>
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Management Procedures

- **CARE** Counseling & psychosocial aspects
  - Audibility & impairment
  - Remediate communication activity
  - Environmental coordination/participation improvement

- Interpretation
- Information
- Counseling/guidance
- Hearing aid fitting
- Assistive devices
- Inform/orientation
- Personal skills
- Expectations
- Situation improvement
- Vocational
- Educational
- Social
Management procedures

- Methods for improving communication
  - Hearing aids
  - Assistive devices
  - Cochlear implants
  - Auditory training
  - Speechreading
  - Manual communication
Management procedures

- Communication strategies
- Communication partner training
- Psychosocial aspects of HL and counseling
- AR for children and adults
Other AR services

- Noise protection
  - Hearing conservation program
- Tinnitus management
- Vestibular rehabilitation
Why is AR important?

- The options for medical intervention are limited for SNHL
- Hearing is vital for survival
  - Is omnidirectional (from all directions)
  - Provides vital safety information all the time
  - Is extremely sensitive and has a large dynamic range
- Hearing is also vital in learning.
- Hearing loss affects the quality of life
  - Blindness isolates one from things; Deafness isolates one from people
Impact of HL on the quality of life

- General Health:
  - physical, emotional and mental health

- General performance
  - Self-esteem
  - Social skills
  - Work and school performance
  - Household income

- Interpersonal relationships
  - Other’s perceptions of a person’s mental acuity
  - Family relationships
The impact of untreated hearing loss on household income

![Graph showing the impact of hearing loss severity on annual household income. The graph compares aided, unaided, linear (aided), and linear (unaided) scenarios across different severity levels in deciles.]
Who are the providers of aural rehab?

- Audiologists
- Speech pathologists
- Educators
- Psychologists
- Social workers
- Rehabilitation counselors
- ENT physicians
- Parents

Team efforts
AR service locations

- University/college
- Private practice
- Hospital
- Community Center
- Otologist’s office
- Public/private school
- Self-help groups
- School for the deaf
- Internet
Why is AR important?

- Better patient outcomes
- Reduced hearing aid return rate
- Better rapport with patients
- Increased referrals to friends from satisfied patients
- Greater patient ability to manage hearing difficulties
- Improved patient quality of life
- Patient self-empowerment
Why do you need to learn AR

Why do Aud students need to learn AR?

Why do SLP students need to learn AR?
The knowledge you need to know

- Examples of the courses that are related to AR
  - Assessment of hearing impairment
    - Diagnostic Audiology I and II
    - Auditory evoked potentials
  - Management of hearing impairment
    - Hearing aids (1) and (2)
    - Cochlear implantation
    - Counseling
    - Industrial audiology
    - Vestibular disorders
- Speech and language-related courses
An Introduction to Aural Rehabilitation

Cincinnati Children's Hospital Medical Center

https://www.youtube.com/watch?v=AhJycJVLf-Y
Next class topics

- Review of basic anatomy and physiology of the ear
- Causes of hearing loss
- Type of hearing loss
- Degree and configuration of hearing loss
- Onset of hearing loss
- Interpreting audiograms
- Estimating communication impact from audiogram