

ITP 104 (INTRODUCTION TO AUDIOLOGIC HABILITATION/REHABILITATION)
INTERPRETER TRAINING PROGRAM
SPOKANE FALLS COMMUNITY COLLEGE

COURSE LEARNING OUTCOMES (CLOs)

1. Create a pictorial of the parts of a sound wave, including compression, rarefaction, intensity and frequency.
2. Label the parts of the outer, middle and inner ear.
3. Describe the purpose of the outer, middle and inner ear for the reception of sound.
4. Compare air conduction to bone conduction.
5. Contrast congenital, acquired, conductive and sensorineural hearing losses.
6. Demonstrate categories of hearing loss and hearing thresholds by preparing an audiogram.
7. Compare types and purposes of different hearing aids.
8. Compare group listening systems to individual listening systems.
9. Describe parts and functions of a cochlear implant.
10. Describe the reasons a person might want a specific individual amplification system.
11. Given an audiogram, develop an appropriate audiological intervention and support systems.

COURSE OUTLINE

This course introduces the anatomy of the ear, the functions of the parts of the ear, and types and functions of hearing assistive devices. It is designed to furnish students with a basic understanding of the physiology, mechanics and the impact of hearing loss. There are 10 tasks in this course. At the completion of this course, students will have been introduced to:

<u>TASK</u>	<u>TOPICS</u>
1	The Propagation of Sound
2	Parts of the Ear
3	Physiology of Hearing
4	Causes of Auditory Dysfunction
5	Audiometric Evaluations
6	The Function and Components of Hearing Aids
7	Types of Hearing Aids
8	Cochlear Implants
9	Individual Amplification Systems
10	Final Project

ITP 104: COURSE OUTLINE IS AS FOLLOWS:

1. Task 1: The Propagation of Sound

- 1.1 Introduction to the generation of sound
 - 1.1.1 Describe sound waves
 - 1.1.2 Define compression and rarefaction
 - 1.1.3 Relate velocity to sound wave production
- 1.2 Introduce intensity (loudness), frequency (pitch) and cycle
 - 1.2.1 Describe how intensity is measured
 - 1.2.2 Define and relate pitch to sound waves
 - 1.2.3 Create a pictorial representation of a sound wave cycle

2. Task 2: Parts of the Ear

- 2.1 Identify parts of the outer ear
 - 2.1.1 Label the parts of the outer ear
 - 2.1.2 Describe the purpose of the outer ear parts for the reception of sound
- 2.2 Identify parts of the middle ear
 - 2.2.1 Label the parts of the middle ear
 - 2.2.2 Describe the purpose of the middle ear parts for the reception of sound
- 2.3 Identify parts of the inner ear
 - 2.3.1 Label the parts of the inner ear
 - 2.3.2 Describe the purpose of the inner ear parts for the reception of sound

3. Task 3: Physiology of Hearing

- 3.1 Differentiate between air and bone conduction
- 3.2 Describe how air conduction sound waves go from external air to the brain and produce sound
- 3.3 Describe how bone conduction sound waves travel to the brain and produce sound

4. Task 4: Causes of Auditory Dysfunction

- 4.1 Comparing causes of hearing loss by the age of onset
 - 4.1.1 Define congenital losses
 - 4.1.2 Define acquired losses
- 4.2 Compare causes of hearing loss by anatomical location
 - 4.2.1 Define conductive losses and identify common causes
 - 4.2.2 Define sensorineural losses and identify common causes
- 4.3 Identify types of sensorineural losses
 - 4.3.1 Identify common characteristics of people with sensorineural loss
 - 4.3.2 Compare traumatic sensorineural loss to acquired loss

5. Task 5: Audiometric Evaluation

- 5.1 Describe pure-tone testing
- 5.2 Describe bone-conduction testing
- 5.3 Identify the classifications of hearing loss
 - 5.3.1 Compare the hearing threshold levels of the classifications
 - 5.3.2 Match the descriptive terms of the classifications to the hearing thresholds
- 5.4 Identify the purposes and implications of speech reception threshold tests
 - 5.3.1 Compare the speech reception threshold levels to level of loss
 - 5.3.2 Describe speech discrimination
- 5.5 Demonstrate those categories by using an audiogram
 - 5.5.1 Given the thresholds for individuals, chart an appropriate audiogram
 - 5.5.2 Draw conclusions about the probable disability needs

6. Task 6: The Function and Components of Hearing Aids

- 6.1 Describe the basic function of a hearing aid
- 6.2 Illustrate the basic parts of a hearing aid

7. Task 7: Types of Hearing Aids

- 7.1 Describe the various types of hearing aids:
 - 7.1.1 behind the ear aid

- 7.1.2 eyeglass hearing aid
- 7.1.3 body hearing aid
- 7.1.4 completely in the canal/in the canal/ in the ear
- 7.1.5 CROS hearing aids
- 7.1.6 BICROS hearing aids
- 7.1.7 Bone conduction hearing aids
- 7.1.8 binaural and monaural hearing aids

8. Task 8: Cochlear Implants

- 9.1 Identify the purpose and goal of cochlear implants
- 9.2 Describe the parts and function of the parts of the cochlear implant
- 9.3 Define “viable candidates” for cochlear implants
- 9.4 Compare cochlear implants to other types of assistive devices

9. Task 9: Individual Amplification Systems

- 9.1 Identify the purpose of individual amplification systems
- 9.2 Compare types of assistive listening devices (ALDs)
- 9.3 Contrast types of telephone amplifiers
- 9.4 Describe the purpose and goal of each of the following alerting devices: visual signals, infant baby cry alarms, vibrotactile devices, TDDs.

10. Task 10: Final Project

- 10.1 Given an audiogram, develop an appropriate audiological intervention and support system
- 10.2 Present Final Project using instructor criteria
- 10.3 Evaluate each other’s projects
 - 10.3.1 Writing positive feedback about presentation
 - 10.3.2 Using features check list