Deaf and Hard of Hearing Callers

Approximately 15 percent of American adults over age 18 experience some degree of hearing loss. Hearing loss can affect balance, safety, mental health, cognitive functioning, and a person's ability to communicate effectively during an emergency. For 911 telecommunicators, understanding how people who are deaf or hard of hearing communicate is essential to providing accessible and effective emergency services.

This course introduces learners to the anatomy of the ear, hearing loss, Deaf culture, appropriate terminology, American Sign Language (ASL), telecommunications technology, and methods used by people who are deaf or hard of hearing to contact 911. Learners also examine the responsibilities of Public Safety Answering Points (PSAPs) under the Americans with Disabilities Act (ADA) and best practices for recognizing and handling TTY, relay, text-to-911, and other emergency communications.

Learning Objectives

Upon completion of this course, learners will be able to:

1. Describe how the human ear processes sound.
2. Explain what it means to be deaf or hard of hearing.
3. Identify appropriate terminology and communication practices when engaging a person who is deaf or hard of hearing.
4. Describe telecommunications technologies used by people who are deaf or hard of hearing.
5. Explain how members of the deaf and hard of hearing community contact and communicate with 911.

Module 1: What it Means to be Deaf or Hard of Hearing

This module introduces the anatomy and function of the human ear and examines how hearing disorders occur. Learners explore the outer, middle, and inner ear; how sound is converted into electrical signals interpreted by the brain; causes and types of hearing loss; the effects of sound intensity; and treatment options. The module also introduces two perspectives on deafness: deafness as a disability and deafness as a cultural identity.

Module Objectives

Upon completion of this module, learners will be able to:

1. Identify the major structures of the outer, middle, and inner ear and describe their functions.
2. Explain how sound waves are transmitted through the ear and interpreted by the brain.
3. Describe common causes, types, and degrees of hearing loss.
4. Explain how exposure to high-decibel sound can damage hearing.
5. Compare the disability and cultural perspectives on deafness.

Content/Activities

- Anatomy of the Ear outer Ear, middle ear and inner ear
- Video: The Journey of Sound to the Brain
- Hearing Disorders
- Causes of Hearing Disorders
- The Impact of Sound Intensity
- Decibel levels and hearing damage
- Types of Hearing Loss
- Hearing-loss treatment options
- Deaf Culture
- The Disability Perspective
- The Cultural Perspective

Module 2: Communicating with the Deaf or Hard of Hearing

This module focuses on respectful and effective communication with people who are deaf or hard of hearing. Learners examine preferred and inappropriate terminology, People First Language, American Sign Language, glossing, and common misconceptions regarding speech, signing, lip reading, and communication abilities.

Module Objectives

Upon completion of this module, learners will be able to:

1. Distinguish appropriate terminology from outdated or derogatory terminology when communicating about hearing loss.
2. Apply respectful communication principles when interacting with people who are deaf or hard of hearing.
3. Explain the purpose and basic characteristics of American Sign Language.
4. Describe glossing and distinguish it from a written translation of ASL.
5. Identify and correct common misconceptions about how people who are deaf or hard of hearing communicate.

Content/Activities

- Appropriate and Inappropriate Terms
- Preferred terms: deaf, hard of hearing, late deafened, deaf blind, and hearing loss
- Outdated or inappropriate terminology
- Terms still in use but no longer preferred
- People First Language (PFL)
- American Sign Language (ASL)
- ASL grammar and syntax
- Regional and international variations in sign language
- Glossing
- ASL glossing example
- Interactive Activity: Common Misconceptions About the Deaf and Hard of Hearing

Module 3: Technology

This module examines telecommunications technologies that help people who are deaf or hard of hearing communicate with others. Learners review accessibility requirements established by the Americans with Disabilities Act and explore Telecommunication Relay Services, teletypewriters, Voice Carry Over, captioned telephone services, Internet Protocol Relay Service, Video Relay Service, and newer communication technologies.

Module Objectives

Upon completion of this module, learners will be able to:

1. Explain ADA requirements related to accessible telecommunications services.
2. Describe the purpose and operation of Telecommunication Relay Services.
3. Explain how a teletypewriter communicates information and how TTY users take turns during a conversation.
4. Differentiate among Voice Carry Over, Captioned Telephone Service, Internet Protocol Relay Service, and Video Relay Service.
5. Describe how smartphones, videophones, messaging, and other recent technologies have changed communication options for people with hearing loss.

Content/Activities

- Communication technology for people who are deaf or hard of hearing
- Americans with Disabilities Act (ADA)
- Direct and equal access requirements
- Telecommunication Relay Services (TRS)
- Communications Assistants (CAs)
- 7-1-1 relay access
- Teletypewriter (TTY)
- TTY turn-taking conventions
- “GA” — Go Ahead
- TTY calls through a Communication Assistant
- Voice Carry Over
- Captioned Telephone Service including two-line Captioned Telephone Service, Internet Protocol Relay Service, Video Relay Service (VRS)
- ASL communication through VRS
- Recent telecommunications technologies including smartphones, videophones, and instant messaging

Module 4: Contacting 911

This module examines how people who are deaf or hard of hearing access 911 and the responsibilities of emergency communications centers when handling those contacts. Learners review ADA requirements for direct and equal access, TTY emergency calls, silent open-line calls, transfer procedures, text-to-911, location limitations, and the importance of following local PSAP Standard Operating Procedures.

Module Objectives

Upon completion of this module, learners will be able to:

1. Explain the ADA requirements for direct and equal access to emergency communications services.
2. Describe PSAP responsibilities for receiving and transferring TTY emergency calls.
3. Recognize indicators that an apparently silent or open-line call may be a TTY call.
4. Explain the capabilities and limitations of TTY and text-to-911 communications.
5. Apply appropriate procedures when communicating with a caller who is deaf or hard of hearing during an emergency.

Content/Activities

- Methods used by people who are deaf or hard of hearing to contact 911
- Local PSAP Standard Operating Procedures
- Video: Difficulties Calling 911 / Communicating with 911
- PSAP Responsibilities
- ADA requirements for direct and equal emergency access, including equal response, time, equal response quality, and equal hours of operation
- Automatic Number Identification, Automatic Location Identification, and Automatic Call Distribution
- Primary and secondary PSAP responsibilities
- 911 or alternate emergency numbers
- Telephone and TTY 911 Emergency Calls
- Recognizing a TTY call
- TTY audible tones and recorded announcements
- Silent open-line calls
- Limitations of TTY

Module 5: Knowledge Check

This module provides learners with an opportunity to demonstrate their understanding of the course concepts presented throughout the previous modules. Learners apply their knowledge of hearing loss, communication terminology, Deaf culture, telecommunications technology, and emergency communications procedures.

Module Objectives

Upon completion of this module, learners will be able to:

1. Demonstrate understanding of how hearing and hearing loss occur.
2. Select appropriate terminology and communication practices for interactions with people who are deaf or hard of hearing.
3. Distinguish among major telecommunications and relay technologies.
4. Apply appropriate procedures when evaluating communications involving deaf or hard of hearing callers.
5. Demonstrate understanding of PSAP accessibility responsibilities and emergency communication practices.

Content/Activities

- Knowledge Check
- Hearing anatomy and hearing-loss concepts
- Appropriate terminology and communication
- American Sign Language and Deaf culture concepts
- Telecommunications technology review
- TTY and relay service review
- 911 accessibility and PSAP responsibility review
- Scenario-based application questions

Module 6: Conclusion

This module reinforces the importance of accessible, respectful, and effective emergency communications for people who are deaf or hard of hearing. Learners review the major concepts of the course and consider how knowledge of hearing loss, communication preferences, technology, and emergency-access requirements supports effective telecommunicator performance.

Module Objectives

Upon completion of this module, learners will be able to:

1. Summarize the major concepts related to hearing loss and Deaf culture.
2. Reinforce respectful communication practices for callers who are deaf or hard of hearing.
3. Summarize the major technologies available for accessible telecommunications.
4. Explain the telecommunicator's role in ensuring effective access to emergency services.
5. Apply course concepts within local PSAP policies, procedures, and available technologies.

Content/Activities

- Course review
- Key communication terminology
- Deaf and hard of hearing communication considerations
- Telecommunications technology review
- Emergency communications accessibility review
- PSAP and telecommunicator responsibilities
- Application of local Standard Operating Procedures
- Course conclusion

Course Completion Criteria

To successfully complete this course and earn a certificate and continuing education hours, learners must achieve a minimum score of 75%. The quiz must be completed within 30 minutes.

- CE hours awarded: 1
- Certificate duration: 12 Months

Technical Requirements

- Desktop, laptop, or mobile device
- Speakers or headphones
- High-speed Internet access
- A current web browser