

Office of Accessibility Resources Main number: 315-792-5644 Payne Hall, Room 104H – Utica Office Plumley Complex 102G –Rome Office https://www.mvcc.edu/accessibility-resources disabilityoffice@mvcc.edu

# Working with Students who are Blind or Visually Impaired

Students who are blind or visually impaired are seeking and successfully graduating from colleges. While college students with visual impairments face their share of challenges, modern technology has made school more accessible than ever before. Applications and computer software allow students to attend classes. Adjusting academically and socially can be challenging for any freshman student, and visually impaired students are no exception.

#### **Definitions** – Based on the American Foundation for the Blind (AFB)

#### **Visually Impaired**

Vision impairment is "a visual acuity of 20/70 or worse in the better eye with best correction, or a total field loss of 140 degrees." Visual impairment may also be affected by limited ability to adapt to light or darkness, sensitivity to light, light/dark contrasts or glare. Vision that falls between 20/200 and 20/400 is defined as severely impaired, while vision from 20/500 to 20/1000 is categorized as profoundly impaired.

#### **Legally Blind**

Legal blindness is "a level of vision loss that has been legally defined to determine eligibility for benefits". In the United States, this refers to a medically diagnosed central visual acuity of 20/200 or less in the better eye with the best possible correction, and/or a visual field of 20 degrees or less. Often, people who are diagnosed with legal blindness still have some usable vision.

#### **Total Blindness**

Total blindness refers to an inability to see anything with either eye.

#### Low Vision

Low vision is a person who has measurable vision but has difficulty accomplishing or cannot accomplish visual tasks even with prescribed corrective lenses but who can enhance his or her ability to accomplish these tasks with the use of compensatory visual strategies, low vision devices, and environmental modifications.

#### **Vision Loss**

Vision Loss refers to individuals who have trouble seeing, even when wearing glasses or contact lenses, as well as to individuals who are blind or unable to see at all.

#### **Visual Impairment**

Visual impairment is a functional limitation in the eyes. For a variety of reasons, the eyes do not always work as they should. While certain impairments are treatable, those described as having a visual impairment have conditions that cannot be fixed with corrective lenses. Many health diagnoses can cause degenerative loss of vision or low/ limited vision (Ex. an accident or medical condition, such as diabetes).

# All individuals with functional limitations of vision should connect with the Office of Accessibility Resources (OAR) to determine if supports and services are available to assist them during their time at the college. The main number is 315-792-5644.

# Tips in Working with a Person who is blind, or has low vision:

- Identify yourself do not assume the person will recognize you by your voice.
- Speak naturally and clearly. Loss of eyesight does not mean loss of hearing.
- Use everyday language. Don't avoid words like "see" or "look" or talking about everyday activities such as watching TV or videos.
- Name the person when introducing yourself or when directing conversation to them in a group situation.
- Never leave a conversation with a person without saying so.
- Use accurate and specific language when giving directions. For example, "the door is on your left", rather than "the door is over there".
- Address people who are blind or have low vision by their names so they know you are speaking to them.
- Let the person who is blind or have low vision know that you have entered the room.
- Offer the person who is blind or visually impaired your elbow when leading them through a room, crowds, etc.
- In dangerous situations say "STOP"
- Do not relocate objects or furniture without telling the person who is blind or has low vision.
- Describe the surroundings and obstacles in a person's pathway (remember to look up as well as down). Warn of the presence of over-hangs, such as cupboards, jutting side mirrors of cars, or trees. In Gyms, weights or items that are at shoulder height are often jutting out, or Science Labs may also have obstacles.
- Do not leave doors ajar. Close them or open them fully.
- Ask people who are blind or have low vision what they want or need. Do not assume they need help.
- If people who are blind or have low vision extend their hands to shake, do so. Inform them if you reach out your hand, "I'd like to shake your hand".
- When seating people who are blind or have low vision, put their hands on the back of the chair and they will then be able to seat themselves.
- Relax, be yourself and act naturally.

# HOW COLLEGES ACCOMMODATE STUDENTS WITH A VISUAL DISABILITY

Most academic experts agree that Universal Design of Learning (UDL) is key for integrating blind and visually impaired students into the college classroom. UDL addresses and modifies course curricula that exclude any student, particularly those with a disability that affects their ability to learn and/or receive instruction in a class setting. In order to create universally accessible courses, postsecondary institutions must take the following steps to ensure their classes and campuses are completely inclusive:

- Materials need to be available at the same time as the other classmates. If materials need modification into alternative formats (ex. Braille), those materials are required digitally, at least 1 week ahead of the class, and preferably further ahead. This is especially essential for classroom materials (PowerPoints, Handouts) and tests.
- Modify course instruction to meet the needs of every individual learner. For blind and visually impaired students, this means the availability of using technology in the classroom, auditory software, large-font presentations and/or Braille materials.
- Allow students with visual impairments to complete course work, give presentations and take exams using alternative formats.
- Allow students who are visually impaired to recorded lectures: Students may benefit from audio lectures and/or recordings made during class. Students can replay the audio as needed to review course material in their own time after class. Common recording tools include handheld digital voice recorders and digital note-taking devices.
- Offer students with visual impairments the ability to work within groups, or partners or when needed a 1:1 student assistant through OAR hire for specific needs such as science labs, gym courses, etc. The MVCC OAR have used internships through Rec Therapy for a fitness class, or Work Study for a science course.
- Offer students with visual impairments additional time for assignments and tests, as well as getting to class.

Accommodations provided for students with visual impairments at MVCC include access to materials and facilities during class that can augment the learning process for students with visual impairments. Examples include:

- Ensure all classrooms, dormitories, dining halls and other facilities are completely accessible to every student, regardless of disability. If you see something, say so
- Appoint individuals who can assist these students as note-takers, readers, scribes or other essential roles.
- Provide reserved seating at front of classroom. MVCC offers a larger table and chair to
  allow students with visual impairment the space needed to have their technology, braille
  notes, etc. Please make arrangements for additional accessible tables and chairs through
  the OAR office (if more than one table and chair are required). Make sure that the table
  and chair remains in the same space, at the front of the class and guide the student if
  needed to his chair.
- Allow service animals in classrooms. If you have questions about a Service animal contact MVCC OAR for classroom situations. Many visually impaired students use a guide dog or long cane to move around on campus. Mobility training is also coordinated through OAR.

- Braille or alternate format textbooks (such as audio books) are provided through the MVCC OAR. The course syllabus, and ISBN numbers are required by the professors at least 6 weeks prior to the start of the semester.
- Materials that require conversion or modification into alternative formats, (Raised maps, graphs, Braille, etc.) are required digitally, at least 1 week ahead of the class, and preferably further ahead. This is especially essential for classroom materials (PowerPoints, Handouts) and tests.

#### Guide students with disabilities to OAR services. Some students with visual impairments may not know about our office. Tamara Mariotti the Coordinator of Accessibility Resources, and Valarie Warmuth, Alternate Format coordinator are available to assist students and staff with alternate materials, and discussing options and ideas. The main number for OAR is 315-792-5644Assistive Technology

Specialized software, devices and other forms of technology have removed many academic barriers and allowed students with disabilities to receive a proper education. Postsecondary institutions are required by federal law to offer accommodations to all students with disabilities; OAR maintains assistive technology hardware and software where these learners can acquire the necessary equipment and materials. Not all students who are visually impaired use the same technology and not all who are blind are Braille readers.

Some of the most common forms of adaptive technology for students who are blind or visually impaired include the following:

#### Screen reader

These devices enable blind or visually impaired students to read onscreen text using a speech synthesizer. The user operates the screen reader by inputting different letter combinations on a keyboard or Braille display, and this causes the speech synthesizer to read what is printed; the display will also 'speak' when changes occur on the screen. Other capabilities include a 'find' function, spell-check, and cell reading for spreadsheets.

## **Screen magnification**

This application automatically zooms in on text and graphics in order to assist students with low or limited vision. Users operate magnification using a mouse or keyboard commands. This system also presents written materials in a smooth, easy-to-read font.

## Video Magnifier

Also known as a closed-circuit television system (CCTV), this device projects magnified text and graphics on a screen using a mounted or handheld camera. Magnification and focus level is usually determined after the camera has been positioned at a reasonable distance for the user, but some video magnifiers are designed to automatically focus.

## **Adaptive Keyboard**

Most blind and visually impaired students are able to operate standard keyboards. For those who are not, specialized keyboards come with locator dots on important keys. Embossed, removable Braille overlays for keyboards are also available.

## **Portable Note-Taker**

These pocket-sized devices are designed to assist blind and visually impaired students with Braille-friendly buttons and/or a standard QWERTY keyboard. In addition to recording lectures, a note-taker may also be used to read books, compose assignments and find directions.

# **Optical Character Recognition**

This form of technology is engineered to scan text and then repeat the text aloud using a speech synthesizer or save the data. OCR devices are usually programmed to detect and call out misspelled words. Some allow users to store data on the device using a memory card, as well as download it to a PC hard drive. According to the AFB, there are few devices on the market that are able to interpret graphs, photos, videos and other non-text media; these devices aren't yet able to interpret handwritten text.

## **Braille Embosser**

Braille embossers are printers in order to print documents in Braille. Generally, these embossers require thick paper and will only print on one side. Braille translation software (see below) is also required for most embossers.

#### **Braille Display**

Refreshable Braille displays use pins to transcribe on-screen text into tactile Braille the user can feel with their fingertips. These devices are usually attached to the keyboard and/or connected to the PC with a cable. Most translate Braille into one line of printed text at a time, but faster versions are available for advanced readers.

#### **Braille Translation Software**

There are numerous options for software that converts written text into tactile Braille. Some of the most popular platforms. OAR uses Duxbury Braille Translator software.

# APPs- There is an APP for that!

<u>https://appadvice.com/applists/show/apps-for-the-visually-impaired</u> Ask the student what APPs they use. Anything from GPS, to identifying money, is available.