Center for Accessible Resources

Working with students with vision loss
Center for Accessible Resources (CAR)

For students who have vision loss, the classroom may present major challenges. The classroom is a visual environment—with textbooks, syllabi, handouts, whiteboards/overheads, digital slides, films, and information on the computer/Moodle. Faculty members must work with staff at the Center for Accessible Resources (CAR) to prepare needed materials. This may include preparation of alternate format materials (i.e. computer/digital audio versions of texts and handouts, Braille, or tactile diagrams), as well as coordinating accessible technology, notetakers, and visual describers.

For students who are in science classes and labs, there may be additional considerations and strategies to keep in mind in order to provide an accessible learning environment.

Each student has unique challenges based on his/her specific vision loss. Some students may be blind while others may experience a range of vision issues. The following strategies can help guide faculty members when working with students with vision loss in their classes.

General classroom guidelines

The following tips will help a student with low vision, or a student who is blind, be aware of what's happening in the classroom:

- The student may want to sit away from glaring lights and towards the front for better visibility.
- When entering or leaving a room, faculty should identify themselves and be sure to mention when leaving. Address the student by name to gain his/her attention.
- It is not necessary to speak loudly to someone with vision loss.
- When communicating with a student with vision loss, always identify yourself and others who are present. Don't assume a student who is blind will recognize people by their voices even if she or he has met them before.

- Use descriptive words such as straight, forward, left, etc. in relation to the student's body orientation. Be specific in directions and avoid the use of vague terms such as "over there," "here," "this," etc.
- Describe, in detail, pertinent visual aspects involved in learning activities.
- Describe and familiarize the student via touch to the classroom, laboratory, equipment, supplies, materials, field sites, etc.
- Give verbal notice of room or schedule changes, special meetings, or assignments.
- Offer to read written information when appropriate.
- Let the student know if leaving or ending a conversation.
- Do not pet or touch a service animal (guide dog). Service animals are working animals. For an individual who is blind, it can be hazardous if the dog is distracted.
- Be understanding of slight noise made by a braille notetaker.
- Also use an auditory or tactile signal where a visual signal is normally used.
- Be sensitive if questioning individuals about their blindness. This is personal information and boundaries should be respected.

Information access for students with vision loss

Accessible description will be necessary for pictures, graphics, displays, field sites, and in situations where touch will not identify the items. Oral descriptions will also be needed for orientation and mobility in unfamiliar situations. Work closely with CAR staff to prepare course material for students with vision loss.

- Verbally describe any visual materials. If demonstrating how to use equipment, be sure to describe the equipment and how to operate it.
- Read overheads aloud and describe the content of slides (see note below about large print).
- Provide description of action in videos. If videos are distributed or assigned as part of the course, any action or explanatory text in the video crucial to understanding the context of the presentation should be provided in some capacity.
- If there are multiple speakers (such as a panel), have each speaker introduce him/herself. During Q & A, each speaker needs to re-identify him/herself prior to responding.
- Plan ahead to make handouts available in large print, digital, and/or Braille formats. Work closely with CAR staff. All material must be converted, including texts, supplemental readings, online material and PDFs, information from websites used in the course, syllabi, and any handouts related to the course such as calendars. This process may take time; get started as early as possible.

- Large Print: Students who have low vision may be able to see print if it is large enough. Prepare print information on white paper with sharp, black ink. The easiest font to read is Arial. When students need larger font sizes (i.e. 18 point and up), enlarge the font on the computer prior to printing the handout. In the case of documents already in print form, use a copy machine to enlarge each page onto 11 x 17 paper, or ask CAR to make the enlargements.

Guidelines for health and science classes

- All colored objects used for identification related to a lesson or experiment should be labeled with a braille label or other tactile code.
- Describe in detail all pertinent aspects of visual occurrences and visual media.
- Use an overhead projector, whiteboard, graphs, or slides as normal, but provide detailed vocal descriptions.
- Use a sighted visual describer or descriptive video when showing videos/DVDs.
- Where needed, CAR staff will assist in converting class handouts, directions, and tests to Braille ahead of time.
- Modify instructions to allow for auditory/tactile presentation.
- Drawings or graphics can be converted into an embossed in tactile impression to supplement your instruction when needed.
- Whenever possible, use actual objects/three-dimensional representations which provide tactile information.
- Find an appropriate place to set up a desktop video magnifier or similar device for long range observations of the board or demonstrations.

Guidelines for labs

- Describe and tactilely/spatially familiarize the student with lab and all equipment to be used.
- Work with CAR staff to label material, supplies, and equipment with large print and/or Braille as appropriate for the student.
- Assistance may be needed for converting certain laboratory materials from a visual to a tactile format. Please contact CAR for assistance.
- Have the student with vision loss do a trial run on the equipment before the activity.
- Allow more time for the laboratory activities.
- Always try to keep materials, supplies, and equipment in the same places.

- Leave doors all the way open or all the way closed; half opened doors or cupboards are dangerous. Don't rearrange furniture or personal belongings without letting the student know.
- Use a computer/video microscope eyepiece to magnify microscope images for students who have low vision.
- Use an overhead projector to show step-by-step instructions. Masking all the instructions except the one(s) to follow will help students with vision loss.
- Provide a means for the acquisition and/or recording of data in an appropriate mode for the student. This might be an audio recorder near an activity to record results and observations.
- Make equipment available for students to interpret and understand the results of laboratory exercises (i.e. audible readout voltmeters; talking calculators, thermometers, and magnifiers; etc.).
- Use a hot plate for heating instead of a Bunsen burner.
- Pair the student with vision loss with a sighted student. Then have the sighted student describe the activities and outcomes as observed.
- Have a lab assistant available to assist students with vision loss (CAR may assign an in-class aide).
- For some projects that are highly visual, consider alternate activities/exercises (i.e. less visual) that can be completed with less difficulty for the student, but have the same or similar learning objectives.

Lab testing

- Present exams in an unbiased format to students with vision loss. Ask the student for the approach she or he finds most accessible.
- Allow the student to start a lab identification test early in order to have more time at various stations.
- Print tests with larger font size (i.e. 18 pt. or larger) as needed.
- Make use of visual magnification, audio recorders, and offer oral testing as options.

Field Experiences

- Make all handouts, safety information, and assignments available in an appropriate form (i.e., regular print, large print, tactile form, Braille, or audio format).
- Use a sighted guide to assist the student and provide visual descriptions.
- Provide detailed description and narration of objects seen in science centers, museums, and/or field activities.

- Make arrangements for tactile examinations, such as plant/animal species collections. If touch is not normally permitted (say, in a museum) then contact the curator for tactile access to museum display items.
- Consider alternate activities/exercises that can be completed with less difficulty for the student, but have the same or similar learning objectives.

(Note: This information was adapted from the University of West Virginia, 2008)

To request this information in an alternate format please contact the Center for Accessible Resources at (541) 463-5150 or accessibleresources@lanecc.edu.

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