Concepts addressed in this course: *Areas of exceptionality in students’ learning: Visual and perceptual difficulties*

**Students should refer to:**

**Specifically, students should review:**
I. Classification of Visual Impairment
   a. Visual Acuity
      i. Low vision – 20/70
      ii. Visual impairment – 20/200 – legally blind
      iii. Peripheral vision – 20 degrees or less – legally blind
      iv. Partially sighted, between 20/70 & 20/200
   b. Visual Process
      i. Parts of the eye
      ii. Refractive errors
         1. Myopia
         2. Hyperopia
         3. Astigmatism
      iii. Errors in binocular vision
         1. Amblyobia
         2. Strabismus
      iv. CNS dysfunctions
         1. Cortical Visual Impairments
         2. Nystagmus
   c. Causes of Visual Impairment
      i. Genetics
      ii. Cataracts - lens
      iii. Glaucoma – anterior chamber
      iv. Detached retina – loose from back of eye
      v. Retinopathy of prematurity

II. Diagnostic Signs of Visual Impairments
   a. Medical/Physical
      i. Eyes with irritated coloring, watery, or discharge
      ii. Itchy, scratchy or burning eyes
      iii. Uncoordination between eyes

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iv. Unfocused appearance
v. Excessive blinking

b. Behavioral
   i. Frequent facial expressions with frowning, squinting, head tilting, shutting one eye, and rubbing.
   ii. Frequent head aches, dizziness, stomach aches, sensitivity to light
   iii. Not alert to surroundings, failure to respond to sound source, inability to recognize familiar faces at a distance.

III. Screening Assessment
   a. Snellen Wall Chart
   b. Snellen E Test – preschoolers
   c. Flash-Card Vision Test

IV. Assistive Technology
   a. ViewScan – projector for books, pictures
   b. Optacon – adds size & contrast
   c. Versa Braille – software program for Braille
   d. Total Talk – speech converter

V. Corrected Vision Strategies
   a. Distance correction may aggravate close work
   b. Observe behaviors when wearing glasses
   c. Refusal to wear strategy - wearing in order to succeed and reinforce wearing glasses with positive statements
   d. Create a need to see.

VI. Uncorrected Vision Environmental & Instructional Strategies
   a. Seating considerations
   b. Lighting considerations
   c. Flat or matte finishes – glare is fatiguing
   d. Outlining boundaries with dark colors
   e. Noise level considerations – low for auditory cues to be heard
   f. Auditory cues in different centers of the room
   g. Olfactory cues in different centers of the room
   h. Provide tours after environmental changes
   i. Use raised labels
   j. Explicit instructions with child’s name used before it as a cue
   k. Teach right & left directional cues

VII. Curriculum Adaptations
   a. Self esteem – body awareness, role models who wear glasses, facial expression awareness, labeling body parts, labeling feelings with auditory cues to help decipher emotions, and encouraging movement from place to place within the environment.
   b. Social studies – field trips with small groups with tactile & auditory experiences, follow-up field trip activities with stories and dramatic play, differentiating between real objects and their representations, explore eye doctor experiences in dramatic play and field trips, and visit people with visual impairments or seeing eye dogs.
c. Language arts
   i. Speaking – one and two step directions, finger plays with paraprofessional to help with fine motor cues.
   ii. Listening – facing people when speaking, practice locating sounds, matching sounds, classifying sounds, provide replicas of objects being discusses, use language to help children focus on their vision, concrete descriptors to more abstract descriptors (i.e. time), and use verbal descriptions of movement when moving freely.
   iii. Reading – start with gross distinctions, shapes & then letters, combine tactile skills with making letter distinctions which is early Braille skills, use high contrast methods such as the overhead, and expose to different written languages.

d. Mathematics – teach tactile discriminations for shape, size, and weight, matching shapes, teach number concepts with real objects, matching dominoes (high contrast), use bodies to measure, use physical boundaries, use tactile surfaces to teach about patterns, and provide many matching experiences.

e. Science – learn about how the eye works, purpose of lens and magnifying lens, participate in changing physical substances, study weather, and use senses to identify pleasant and unpleasant smells and tastes.

Helpful websites include:
American Council of the Blind:  http://www.acb.org
American Foundation for the Blind:  http://www.afb.org
American Printing House for the Blind:  http://www.aph.org
Lighthouse International:  http://www.lighthouse.org/Default.htm
National Association for Parents of the Visually Impaired (NAPVI):  http://www.spedex.com/napvi