



Test Framework

Blind/Low Vision (603)

June 2022

Content Domain	Range of Competencies	Approximate Percentage of Test Score
I. The Human Visual System and the Diverse Learning Characteristics of Students Who Are Blind/Low Vision	0001–0002	20%
II. Assessing Students and Developing Individualized Learning Programs	0003–0004	25%
III. The Learning Environment and Collaborative Practices	0005–0006	20%
IV. Curriculum and Instruction that Supports Students' Development, Learning, Social Interaction, and Independence	0007–0009	35%

THE HUMAN VISUAL SYSTEM AND THE DIVERSE LEARNING CHARACTERISTICS OF STUDENTS WHO ARE BLIND/LOW VISION

0001: Understand the human visual system and types and uses of optical and nonoptical devices, specialized materials, and technologies to support student access, learning, and independence.

- Demonstrate knowledge of key terminology and functions of the human eye and visual systems.
- Demonstrate knowledge of key terminology and functions of areas of the brain involved in processing visual stimuli.
- Demonstrate knowledge of the terminology related to the structure, function, diseases, and conditions of the human visual system, including cerebral/cortical visual impairment (CVI).
- Demonstrate knowledge of specialized terminology commonly used in ophthalmological and optometric evaluations of visual conditions and used in determining educational programming (e.g., visual acuity, visual field, near point convergence).
- Demonstrate knowledge of types, characteristics, and uses of optical and nonoptical low-vision aids.
- Demonstrate knowledge of types and benefits of environmental adaptations (e.g., variations in lighting, positioning, size, color, contrast).
- Apply knowledge of types of low-tech and high-tech assistive technology (e.g., bold pen, handheld magnifier, screen-reading and screen magnification software, optical devices, braille transcription software, notetakers).
- Apply knowledge of methods and strategies for teaching students to access, interpret, and create printed and digital graphics of increasing complexity in visual and/or tactile forms, including maps, charts, diagrams, and tables.
- Apply knowledge of strategies and activities for teaching use of the abacus, accessible calculator, tactile graphics, adapted equipment, and appropriate technology for mathematics and science to meet individual needs of students.

0002: Understand the diverse learning characteristics of students who are blind/low vision related to their development across domains.

- Demonstrate knowledge of factors that impact visual learning (e.g., age of onset of visual condition, differences in quality and quantity of incidental learning experiences and communication, visual condition).
- Demonstrate knowledge of factors related to a student's vision or visual functioning that may affect growth, development, and learning (e.g., degree of vision loss, congenital or adventitious visual condition, coexisting or multiple disabilities).
- Demonstrate knowledge of sensory input (e.g., visual, auditory, tactual) and sensory development and their implications on language, communication, and learning.
- Demonstrate knowledge of the implications of prevalent childhood visual conditions on students' physical/motor, cognitive, communication, and social-emotional domains of early development, including incidental learning gaps that affect early skills development.
- Demonstrate knowledge of the implications of visual conditions on students' development of concepts, including basic orientation, spatial, temporal, positional, directional, and environmental concepts.
- Apply knowledge of methods for promoting sensorimotor and physical skills, including posture, balance, purposeful movement, gross- and fine-motor skills, and strength.

ASSESSING STUDENTS AND DEVELOPING INDIVIDUALIZED LEARNING PROGRAMS

0003: Understand assessment instruments, assessment practices, and methods for evaluating and interpreting assessment results to identify the strengths and needs of students who are blind/low vision.

- Demonstrate knowledge of key assessment terminology and concepts associated with formal and informal evaluative measures and practices (e.g., formative and summative measures, criterion-referenced assessment, adaptive assessment, validity, reliability, baseline, ceiling).
- Demonstrate knowledge of federal requirements for legal provisions, regulations, guidelines, and ethical considerations related to assessment of students who are blind/low vision (e.g., eligibility, access requirements, placement options).
- Apply knowledge of data collection tools used to gather and record multiple sources of informal data and information to identify students' strengths and needs.
- Apply knowledge of methods for developing, implementing, and continuously monitoring learning objectives and goals related to developing concepts, optimizing sensory efficiency, and accessing the curriculum across settings.
- Apply knowledge of components of a functional vision assessment (FVA), including methods of conducting an FVA to determine a student's functional vision and to make recommendations to support the student's strengths and address needs.
- Apply knowledge of components of a learning media assessment (LMA), including methods of conducting an LMA to determine a student's sensory channels and primary learning media and to make recommendations to support the student's strengths and address needs.
- Apply knowledge of types and characteristics of formative, summative, and diagnostic assessments, including the use of a variety of methods and activities to identify a student's strengths and needs, develop individualized instructional plans, and monitor progress to plan and adjust instruction.
- Interpret multiple sources of valid data (e.g., medical and vision-related evaluations, LMA, FVA, background information, formal/informal assessments, performance assessments) to evaluate the effectiveness of an intervention, instruction, specialized media and materials, equipment, and the physical environment in supporting a student's acquisition of general education curriculum skills and/or expanded core curriculum (ECC) skills.
- Apply knowledge of methods and strategies for evaluating the cognitive, motor, social, and language skills of students who are blind/low vision.

- Apply knowledge of identifying and adapting assessment types and measures that are biased, and make reasonable recommendations for nonvisual options or alternate accommodations to provide a valid assessment of a student's strengths and needs.
- Apply knowledge of methods for assessing the accessibility needs of all students who are blind/low vision and methods for advocating for reasonable accommodations and modifications throughout the classroom and school setting.
- Apply knowledge of formal and informal transition assessment methods for identifying a student's interests and preferences related to postsecondary education, prevocational and vocational training, and employment.

0004: Understand procedures for developing and implementing Individualized Education Programs (IEPs), Individualized Family Service Plans (IFSPs), and transition plans for students who are blind/low vision.

- Apply knowledge of the components of IEPs and IFSPs, as well as the roles and functions of IEP and IFSP team members.
- Demonstrate knowledge of the role of a teacher of students who are blind/low vision to increase and promote awareness of accessibility for students in physical and virtual environments and improve equitable access to information for families and the educational team.
- Demonstrate knowledge of the relationships between individualized assessment, intervention planning/implementation, development of IEPs and IFSPs, progress monitoring, and placement specific to the individualized needs of students who are blind/low vision.
- Apply knowledge of methods for selecting and developing instructional accommodations and modifications that address areas of strengths and needs, age, vision and vision prognosis, additional disabilities, family goals, and students' expressed priorities to facilitate students' access to the general curriculum.
- Demonstrate knowledge of the roles and responsibilities of teachers and other educational professionals in providing services and supports for students who are blind/low vision.
- Apply knowledge of federal laws, regulations, and guidelines related to early identification and intervention, eligibility, and placement for students who are blind/low vision (e.g., due process, Child Find, least restrictive environment [LRE], accessibility regulations and laws).
- Apply knowledge of federal requirements and guidelines related to transition planning and services for supporting students' postsecondary education and employment opportunities.
- Apply knowledge of the role of transition planning and ways to use person-centered planning to create individualized goals and support students' expectations.
- Apply knowledge of the role of paraeducators, braille transcribers, and interveners, as well as methods for providing supervision and support to optimize their engagement with students who are blind/low vision.

THE LEARNING ENVIRONMENT AND COLLABORATIVE PRACTICES

0005: Understand methods for creating learning environments that encourage active engagement, communication, motivation, and independence, and support access to instruction for students who are blind/low vision.

- Apply knowledge of methods and procedures for creating positive, productive learning environments that foster student achievement, self-determination, and independence; promote student interactions; and respect diversity.
- Demonstrate knowledge of ways to facilitate incidental learning experiences to address nonvisual access to physical and virtual environments.
- Demonstrate knowledge of accommodations and modifications to promote optimal sensory use and to promote multisensory access to, and active participation in, the general education curriculum and the ECC (e.g., within physical and virtual environments; for individual and group activities).
- Apply knowledge of methods for teaching routines, procedures, and responsibilities related to assistive technology use and maintenance.
- Apply knowledge of strategies and practices for fostering students' active engagement and participation in one-to-one, small-group, and large-group settings, including orienting students to unfamiliar materials and technology.
- Demonstrate knowledge of methods and activities for reinforcing skills taught by orientation and mobility (O&M) specialists to support basic orientation, motor skill development, and academic and social inclusion (e.g., human guide techniques; spatial, temporal, directional, and environmental concepts; purposeful movement; strength).
- Apply knowledge of methods and activities for teaching students their legal rights and responsibilities related to being a citizen who is blind/low vision (e.g., understanding and communicating visual condition, ability to manage and advocate for personal needs).

0006: Understand methods for developing and promoting collaborative partnerships to support students who are blind/low vision.

- Apply knowledge of responsive methods for conveying information to parents/guardians, students, and the educational team members about the implications of a student's visual condition on development and learning, including students' access to the general education curriculum and the ECC.
- Apply knowledge of ways to collaborate with parents/guardians, students, and the educational team to facilitate service delivery for students who are blind/low vision, including identifying school-based resources to address students' needs and collaborating with vision care professionals.
- Apply knowledge of methods for engaging with parents/guardians, students, and the educational team to promote literacy development within the general education curriculum and the ECC.
- Apply knowledge of methods for engaging and collaborating with general education teachers and related service providers to promote students' access to the general education curriculum, instruction, and environment.
- Apply knowledge of strategies for collaborating with O&M specialists to reinforce students' development and practice of O&M skills and other areas of the ECC.
- Apply knowledge of the importance of locating and collaborating with school and community resources to support students' learning and self-determination through mentorship and engagement.
- Apply knowledge of strategies for providing parents/guardians and students with information about nonvisual strategies that promote independence and autonomy across settings for students who are blind/low vision.
- Apply knowledge of methods for engaging parents/guardians and students in planning and actively participating in the transition process for students who are blind/low vision (e.g., early intervention to kindergarten, postsecondary transitions).
- Demonstrate knowledge of methods for collaborating with the educational team to design and implement environments that promote optimal sensory use, foundational orientation and mobility skills, independence, social engagement, and efficient storage of specialized materials.

CURRICULUM AND INSTRUCTION THAT SUPPORTS STUDENTS' DEVELOPMENT, LEARNING, SOCIAL INTERACTION, AND INDEPENDENCE

0007: Understand principles, methods, and strategies for providing individualized instruction for students who are blind/low vision.

- Apply knowledge of evidence-based practices for teaching students who are blind/low vision across the general education curriculum and the ECC.
- Apply knowledge of strategies, methods, and activities for teaching and promoting students' use of technologies to facilitate their learning and access to the general education curriculum and the ECC.
- Apply knowledge of visual, nonvisual, multisensory, and adaptive methods for teaching compensatory skills and sensory efficiency skills in the ECC across learning environments.
- Apply knowledge of planning and implementing explicit instruction of the ECC in the area of assistive technology, including identifying barriers to accessing digital multimedia and virtually built environments and promoting digital citizenship and secure online practices.
- Demonstrate knowledge of basic principles of accessibility to select, create, adapt, modify, and format text, images, tactile graphics, and media to promote usability and increase independence.
- Apply knowledge of methods for optimizing students' visual efficiency, including promoting functional vision using optical, digital, and nonoptical devices; environmental accommodations and modifications; and independent use of dual learning media (e.g., visual and auditory information, auditory and tactile information).
- Apply knowledge of ways to select and use visual, nonvisual, multisensory, and adaptive methods to teach technology skills by integrating students' assessed needs into instructional methods for teaching sensory efficiency skills; use of learning media; keyboarding; and reading, writing, editing, and listening skills.
- Apply knowledge of promoting and reinforcing sensorimotor and physical skills (e.g., gross- and fine-motor skills, posture, balance, purposeful movement, strength).
- Apply knowledge of methods for reinforcing O&M skills and other ECC skills throughout the school environment, including teaching and reinforcing human guide techniques to students who are blind/low vision, their peers, and others who interact with them.
- Demonstrate knowledge of functional listening skills development, including auditory readiness, sound recognition, localization, orientation, and listening comprehension.

0008: Understand principles, methods, and strategies for developing and promoting literacy and communication skills for students who are blind/low vision.

- Apply knowledge of approaches for promoting literacy skills and communicative competence in instructional and noninstructional settings consistent with a student's determined learning medium and individual strengths and needs.
- Demonstrate knowledge of a variety of input/output devices, low-tech and high-tech adaptations (e.g., refreshable braille display, keyboard overlays, screen readers, tactile materials) that address a student's specific access and individualized literacy and communication needs.
- Apply knowledge of teaching diverse social communication skills, including body language, nonverbal communication, and social etiquette.
- Apply knowledge of specialized resources, tools, and activities to address the specific communication needs of students with varied language/communication proficiency, reading levels, and communication modes.
- Apply knowledge of strategies, resources, and technologies for developing students' literacy skills in print, braille, tactual, auditory, and digital media, including instruction and activities to develop tactile readiness and perception, visual efficiency, and auditory skills.
- Apply knowledge of emergent braille literacy instruction using pre-braille and tactile learning strategies.
- Demonstrate knowledge of methods for producing braille (e.g., braillewriter, slate and stylus, embosser, refreshable braille displays).
- Demonstrate knowledge of, and rules for, fully contracted Unified English Braille (UEB) code, including UEB Math/Science.
- Demonstrate knowledge of, and rules for, Nemeth Code, including UEB with Nemeth.
- Demonstrate knowledge of appropriate use of and care for braille and braille production devices and technology equipment, including basic maintenance of devices, software updates, and teaching students to appropriately use and care for equipment.

0009: Understand methods and strategies for promoting self-determination, social interaction, and independent living skills for students who are blind/low vision.

- Apply knowledge of methods and strategies for promoting students' social-personal skills, adaptive behavior, and self-determination skills (e.g., knowledge of self, developing and maintaining relationships).
- Apply knowledge of methods and strategies for teaching skills to develop and enhance students' participation in fitness, leisure, and recreational activities; hobbies; and team and spectator sports to facilitate inclusion.
- Apply knowledge of methods for evaluating social skills and designing behavior strategies to maximize positive social engagement and interaction across environments.
- Apply knowledge of strategies in the area of the ECC for facilitating the maintenance and generalization of self-determination, social interaction, recreation and leisure skills across learning environments.
- Demonstrate knowledge of methods for teaching developmentally appropriate human guide techniques, self-familiarization in new environments, protective and orientation skills using environmental features, and alignment techniques for independent travel to promote safety across environments.
- Demonstrate knowledge of methods for promoting students' self-advocacy for optimal environmental accommodations and modifications, including requesting and refusing assistance as needed.
- Demonstrate knowledge of ways to teach students to recognize and report behaviors that impact their personal safety and well-being.
- Apply knowledge of methods and strategies for teaching the ECC in the area of career and vocational education (e.g., college, job skills, career readiness) and providing postsecondary education and vocational counseling, including knowledge of transition programs.
- Apply knowledge of methods and strategies for teaching the ECC in the area of independent living skills (e.g., personal hygiene, meal preparation, cleaning skills, money management, emergency procedures).