Appendix D – WAKS by CAA Standard

SLP WAKS Learning Marker – University of Wyoming

Revised: Academic items revised August/14, Clinical items revised May/11; Item-course links current as of July/14

Each instructor sets standards to meet graduate objectives; undergraduate objectives (UG) are accomplished through undergraduate education but addressed further in graduate courses; hearing objectives are accomplished through UG and MAC.

**Standard IV-A**

The applicant must have demonstrated knowledge of the biological sciences, physical sciences, statistics, and the social/behavioral sciences.

**Sub Category:** Biological Sciences

**Learning Objective:** The student will have completed coursework in Biological Sciences as part of undergraduate coursework.

**Courses/Activities Using this Marker:** UG/Levelling

**Implementation:** Acceptable courses in biological sciences should emphasize a content area related to human or animal sciences (e.g., biology, human anatomy and physiology, neuroanatomy and neurophysiology, human genetics, veterinary science). A course in biological sciences specifically related to CSD may not be applied for certification purposes to this category unless the course fulfills a university requirement in one of these areas.

**Sub Category:** Physical Sciences

**Learning Objective:** The student will have completed coursework in Physical Sciences as part of undergraduate coursework.

**Courses/Activities Using this Marker:** UG/Levelling

**Implementation:** Acceptable courses in physical sciences should include physics or chemistry. A course in physical sciences specifically related to CSD may not be applied for certification purposes to this category unless the course fulfills a university requirement in one of these areas.

**Sub Category:** Statistics

**Learning Objective:** The student will have completed coursework in Statistics as part of undergraduate coursework.

**Courses/Activities Using this Marker:** UG/Levelling

**Implementation:** A stand-alone course in statistics is required. Research methodology courses in communication sciences and disorders (CSD) may not be used to satisfy the statistics requirement.

**Sub Category:** Social/Behavioral Sciences

**Learning Objective:** The student will have completed coursework in Social/Behavioral Sciences as part of undergraduate coursework.

**Courses/Activities Using this Marker:** UG/Levelling

**Implementation:** Acceptable courses in social/behavioral sciences should include psychology, sociology, anthropology, or public health.
Standard IV-B

The applicant must have demonstrated knowledge of basic human communication and swallowing processes, including the appropriate biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases. The applicant must have demonstrated the ability to integrate information pertaining to normal and abnormal human development across the life span.

IV – B. Knowledge of Normal Basic Human Communication

Sub Category: Biological

Learning Objective: Complete coursework in Speech Anatomy & Physiology as part of undergraduate coursework
Courses/Activities Using this Marker: UG/Levelling (SPPA 3265 – A&P of Speech & Hearing or equivalent)

Learning Objective: Complete coursework in Hearing Anatomy & Physiology as part of undergraduate coursework
Courses/Activities Using this Marker: UG/Levelling (SPPA 3265 – A&P of Speech & Hearing or equivalent)

Learning Objective: Describe anatomy & physiology of respiration
Courses/Activities Using this Marker: UG/Levelling and SPPA 5100 – Motor Speech Disorders

Learning Objective: Describes major components of the central and peripheral nervous system.
Courses/Activities Using this Marker: UG/Levelling and SPPA 5100 – Motor Speech Disorders

Sub Category: Neurological

Learning Objective: Complete coursework in Neurological Basis of Communication as part of undergraduate coursework
Courses/Activities Using this Marker: UG/Levelling (SPPA 4380 – Neurological Basis of Communication or equivalent)

Learning Objective: Describes the anatomy & physiology of articulation
Courses/Activities Using this Marker: UG/Levelling and SPPA 5100 – Motor Speech Disorders

Learning Objective: Describes the anatomy & physiology of hearing mechanism including the outer, middle, and inner ear
Courses/Activities Using this Marker: UG/Levelling and Hearing MAC Examination
Learning Objective: Describes language pathways and processes in the CNS.
Courses/Activities Using this Marker: UG/Levelling and SPPA 5130 – Aphasia

Learning Objective: Describes the pathways and processes of the auditory nervous system.
Courses/Activities Using this Marker: UG/Levelling and Hearing MAC Examination

Sub Category: Acoustic

Learning Objective: Completed coursework in Speech Acoustics as part of undergraduate coursework.
Courses/Activities Using this Marker: UG/Levelling (SPPA 4310 – Acoustics of Speech & Hearing or equivalent)

Learning Objective: Explains the properties of sound and methods of measurement
Courses/Activities Using this Marker: UG/Levelling and SPPA 5220 – Voice Disorders

Learning Objective: Describes the acoustic properties of vowels and consonants.
Courses/Activities Using this Marker: UG/Levelling and SPPA 5100 – Motor Speech Disorders

Sub Category: Psychological

Learning Objective: Completed coursework in Language Development as part of undergraduate coursework.
Courses/Activities Using this Marker: UG/Levelling (SPPA 3160 – Language Development or equivalent)

Learning Objective: Describes cognitive development and its relation to language.
Courses/Activities Using this Marker: UG/Levelling and SPPA 5280 – Preschool Language

Sub Category: Developmental/Lifespan

Learning Objective: Complete coursework in Speech Development as part of undergraduate coursework
Courses/Activities Using this Marker: UG/Levelling (SPPA 3210 – Phonetics or equivalent)

Learning Objective: Completed coursework in Language Development as part of undergraduate coursework.
Courses/Activities Using this Marker: UG/Levelling (SPPA 3160 – Language Development or equivalent)

Learning Objective: Describes the development of literacy
Courses/Activities Using this Marker: SPPA 5330 – School-age Language Intervention

Learning Objective: Demonstrates knowledge of the development of phonology
Courses/Activities Using this Marker: UG/Levelling and SPPA 5020 – Phonological Intervention

Learning Objective: Describes development of syntax, semantics, and pragmatics in early childhood
Courses/Activities Using this Marker: UG/Levelling and SPPA 5280 – Preschool Language Intervention

Learning Objective: Describes development of syntax, semantics, and pragmatics in the school years
Courses/Activities Using this Marker: UG/Levelling and SPPA 5330 – School-age Language Intervention

Sub Category: Linguistic

Learning Objective: Complete coursework in Speech Development as part of undergraduate coursework

Courses/Activities Using this Marker: UG/Levelling (SPPA 3210 – Phonetics or equivalent)

Learning Objective: Completed coursework in Language Development as part of undergraduate coursework.

Courses/Activities Using this Marker: UG/Levelling (SPPA 3160 – Language Development or equivalent)

Learning Objective: Identifies phonological processes

Courses/Activities Using this Marker: UG/Levelling and SPPA 5020 – Phonological Intervention

Learning Objective: Identifies constituents of syntax, semantics, and pragmatics

Courses/Activities Using this Marker: UG/Levelling and SPPA 5280 – Preschool Language Intervention

Sub Category: Cultural

Learning Objective: Complete coursework in Speech Development as part of undergraduate coursework

Courses/Activities Using this Marker: UG/Levelling (SPPA 3210 – Phonetics or equivalent)

Learning Objective: Completed coursework in Language Development as part of undergraduate coursework.

Courses/Activities Using this Marker: UG/Levelling (SPPA 3160 – Language Development or equivalent)

Learning Objective: Identifies effects of cultural & socioeconomic variation on language acquisition

Courses/Activities Using this Marker: UG/Levelling and SPPA 5280 – Preschool Language Intervention

Learning Objective: Explains major features of multiple language acquisition

Courses/Activities Using this Marker: UG/Levelling and SPPA 5330 – School-age Language Intervention

Learning Objective: Identifies effects of cultural & socioeconomic variation on speech acquisition

Courses/Activities Using this Marker: UG/Levelling and SPPA 5020 – Phonological Intervention

IV – B. Knowledge of Normal Swallowing Processes

Sub Category: Biological

Learning Objective: Describes the anatomy & physiology of normal swallow, including oral and pharyngeal phases

Courses/Activities Using this Marker: UG/Levelling and SPPA 5230 – Dysphagia

Sub Category: Developmental/Lifespan
Learning Objective: Demonstrates knowledge of swallowing development
Courses/Activities Using this Marker: UG/Levelling and SPPA 5230 – Dysphagia

Standard IV-C

The applicant must have demonstrated knowledge of communication and swallowing disorders and differences, including the appropriate etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates in the following areas:

- articulation
- fluency
- voice and resonance, including respiration and phonation
- receptive and expressive language (phonology, morphology, syntax, semantics, pragmatics, prelinguistic communication and paralinguistic communication) in speaking, listening, reading, writing
- hearing, including the impact on speech and language
- swallowing (oral, pharyngeal, esophageal, and related functions, including oral function for feeding, orofacial myology)
- cognitive aspects of communication (attention, memory, sequencing, problem-solving, executive functioning)
- social aspects of communication (including challenging behavior, ineffective social skills, and lack of communication opportunities)
- augmentative and alternative communication modalities

Implementation: It is expected that course work addressing the professional knowledge specified in Standard IV-C will occur primarily at the graduate level.

IV – C. Knowledge of Articulation Disorders

Learning Objective: Identifies etiological factors associated with articulation & phonological disorders
Courses/Activities Using this Marker: SPPA 5020 – Phonological Intervention

Learning Objective: Differentiates characteristics of major dysarthria types and apraxia of speech
Courses/Activities Using this Marker: SPPA 5100 – Motor Speech Disorders

IV – C. Knowledge of Fluency Disorders

Learning Objective: Differentiate major characteristics associated with stuttering and cluttering
Courses/Activities Using this Marker: SPPA 5120 – Stuttering

Learning Objective: Describes major theories of stuttering
Courses/Activities Using this Marker: SPPA 5120 – Stuttering

Learning Objective: Contrasts stuttering and normal disfluencies in young children
Courses/Activities Using this Marker: SPPA 5120 – Stuttering

IV – C. Knowledge of Voice and Resonance Disorders
Learning Objective: Identifies etiological factors associated with voice disorders
Courses/Activities Using this Marker: SPPA 5220 – Voice Disorders

Learning Objective: Identifies common voice disorders
Courses/Activities Using this Marker: SPPA 5220 – Voice Disorders

Learning Objective: Identifies etiological factors associated with resonance disorders
Courses/Activities Using this Marker: SPPA 5110 – Craniofacial Disorders (Identifies or Describes?)

Learning Objective: Identifies the perceptual and physiological characteristics associated with resonance disorders
Courses/Activities Using this Marker: SPPA 5110 – Craniofacial Disorders

IV – C. Knowledge of Receptive and Expressive Language Disorders

Learning Objective: Describes symptoms and differentiates among aphasia, dementia, right hemisphere, TBI, and normal aging
Courses/Activities Using this Marker: SPPA 5130 – Aphasia

Learning Objective: Explains intrinsic and extrinsic characteristics of reading deficits
Courses/Activities Using this Marker: SPPA 5330 – School-age Language Intervention

Learning Objective: Differentiates common types of developmental language disorders
Courses/Activities Using this Marker: SPPA 5280 – Preschool Language Intervention

IV – C. Knowledge of Hearing Disorders

Learning Objective: Completed coursework in Audiology as part of undergraduate coursework
Courses/Activities Using this Marker: UG/Levelling (SPPA 4340 – Basic Audiology or equivalent)

Learning Objective: Describes the communication problems associated with hearing impairment and deafness
Courses/Activities Using this Marker: UG/Levelling and Hearing MAC Examination

Learning Objective: Differentiates among common auditory disorders
Courses/Activities Using this Marker: UG/Levelling and Hearing MAC Examination

IV – C. Knowledge of Swallowing Disorders

Learning Objective: Describes etiological factors associated with swallowing disorders
Courses/Activities Using this Marker: SPPA 5230 – Dysphagia

Learning Objective: Describes oral, pharyngeal, & esophageal swallowing deficits throughout the lifespan
Courses/Activities Using this Marker: SPPA 5230 – Dysphagia

IV – C. Knowledge of Cognitive Aspects of Communication Disorders

Learning Objective: Describes the relation of cognitive, sensory, and motor deficits to communication skills
Courses/Activities Using this Marker: SPPA 5210 – AAC
Learning Objective: Describes the relation of acquired deficits in attention, memory, & cognition to communication skills
Courses/Activities Using this Marker: SPPA 5130 – Aphasia

Learning Objective: Describes relation of developmental deficits in attention & memory to communication skills
Courses/Activities Using this Marker: SPPA 5330 – School-age Language Intervention

IV – C. Knowledge of Social Aspects of Communication Disorders (see Intervention)

IV – C. Knowledge of Augmentative and Alternative Communication Modalities

Learning Objective: Apply augmentative and alternative communication (AAC) depending on the need of the client. Identify, describe, and critically evaluate client skills (including linguistic, operational, social, and strategic competencies as well as mediating factors) required to build communicative competence and use both unaided and aided AAC systems
Courses/Activities Using this Marker: UG/Levelling and SPPA 5500 – AAC

Standard IV-D

For each of the areas specified in Standard IV-C, the applicant must have demonstrated current knowledge of the principles and methods of prevention, assessment, and intervention for people with communication and swallowing disorders, including consideration of anatomical / physiological, psychological, developmental, and linguistic and cultural correlates.

IV – D. Knowledge of Prevention, Assessment, and Intervention of Articulation Disorders

Learning Objective: Administers and interprets standardized speech tests
Courses/Activities Using this Marker: SPPA 5140 – Evaluation Procedures

Learning Objective: Analyses the speech sound system of infants and children
Courses/Activities Using this Marker: SPPA 5020 – Phonological Intervention

Learning Objective: Transcribes disordered speech using IPA
Courses/Activities Using this Marker: SPPA 5020 – Phonological Intervention

Learning Objective: Designs appropriate treatment plans for common articulation and phonological disorders
Courses/Activities Using this Marker: SPPA 5020 – Phonological Intervention

Learning Objective: Demonstrates knowledge of procedures for assessment of acquired speech disorders
Courses/Activities Using this Marker: SPPA 5100 – Motor Speech Disorders

Learning Objective: Develops appropriate treatment plans for dysarthria and apraxia
Courses/Activities Using this Marker: SPPA 5100 – Motor Speech Disorders

IV – D. Knowledge of Prevention, Assessment, and Intervention of Fluency Disorders
Learning Objective: Demonstrates knowledge of common fluency assessment procedures
Courses/Activities Using this Marker: SPPA 5120 – Stuttering

Learning Objective: Demonstrates knowledge of treatment approaches for children and adults who stutter
Courses/Activities Using this Marker: SPPA 5120 – Stuttering

IV – D. Knowledge of Prevention, Assessment, and Intervention of Voice and Resonance Disorders

Learning Objective: Performs qualitative assessment of resonance
Courses/Activities Using this Marker: SPPA 5110 – Craniofacial Disorders

Learning Objective: Critiques approaches to treatment of resonance disorders
Courses/Activities Using this Marker: SPPA 5110 – Craniofacial Disorders

Learning Objective: Demonstrates knowledge of quantitative assessment of phonation
Courses/Activities Using this Marker: SPPA 5220 – Voice Disorders

Learning Objective: Performs qualitative assessment of voice
Courses/Activities Using this Marker: SPPA 5220 – Voice Disorders

Learning Objective: Describes intervention for common voice disorders
Courses/Activities Using this Marker: SPPA 5220 – Voice Disorders

IV – D. Knowledge of Prevention, Assessment, and Intervention of Receptive and Expressive Disorders

Learning Objective: Administers and interprets tests for common acquired disorders
Courses/Activities Using this Marker: SPPA 5140 – Evaluation

Learning Objective: Demonstrates knowledge of standardized test construction and evaluation
Courses/Activities Using this Marker: SPPA 5140 – Evaluation

Learning Objective: Administers and interprets common norm-referenced language tests
Courses/Activities Using this Marker: SPPA 5140 – Evaluation

Learning Objective: Clinically analyzes a sample of disordered language
Courses/Activities Using this Marker: SPPA 5140 – Evaluation

Learning Objective: Selects and interprets criterion-referenced assessment measures, including interview, observation, and case history review
Courses/Activities Using this Marker: SPPA 5140 – Evaluation

Learning Objective: Demonstrates understanding of norm-referenced scores and relations among those scores
Courses/Activities Using this Marker: SPPA 5140 – Evaluation

Learning Objective: Differentiates language disorder from language difference
Courses/Activities Using this Marker: SPPA 5140 – Evaluation

Learning Objective: Explains assessment procedures for early language disorders
Courses/Activities Using this Marker: SPPA 5280 – Preschool Language Intervention

Learning Objective: Explains the role of the family and sociocultural factors in language intervention

Courses/Activities Using this Marker: SPPA 5280 – Preschool Language Intervention

Learning Objective: Develops appropriate treatment plans for early language disorders

Courses/Activities Using this Marker: SPPA 5280 – Preschool Language Intervention

Learning Objective: Demonstrates knowledge of assessment procedures for school-age language disorders

Courses/Activities Using this Marker: SPPA 5330 – School-age Language Intervention

Learning Objective: Develops appropriate treatment plans for school-age language disorders

Courses/Activities Using this Marker: SPPA 5330 – School-age Language Intervention

Learning Objective: Delineates the role of the SLP within the school as a system

Courses/Activities Using this Marker: SPPA 5330 – School-age Language Intervention

Learning Objective: Demonstrates knowledge of assessment procedures for acquired language and cognitive disorders

Courses/Activities Using this Marker: SPPA 5130 – Aphasia

Learning Objective: Develops appropriate treatment plans for acquired language and cognitive disorders

Courses/Activities Using this Marker: SPPA 5130 – Aphasia

IV – D. Knowledge of Prevention, Assessment, and Intervention of Hearing Disorders

Learning Objective: Completed coursework in Audiology as part of undergraduate coursework

Courses/Activities Using this Marker: UG/Levelling (SPPA 4340 – Basic Audiology or equivalent)

Learning Objective: Completed coursework in Aural Rehabilitation as part of undergraduate coursework

Courses/Activities Using this Marker: UG/Levelling (SPPA 4150 – Aural Rehabilitation or equivalent)

Learning Objective: Identifies current amplification techniques and assistive devices for hearing loss

Courses/Activities Using this Marker: UG/Levelling and Hearing MAC Examination

Learning Objective: Demonstrates knowledge of basic hearing screening procedures

Courses/Activities Using this Marker: UG/Levelling and Hearing MAC Examination

IV – D. Knowledge of Prevention, Assessment, and Intervention of Swallowing Disorders

Learning Objective: Describes current approaches to the assessment of swallowing

Courses/Activities Using this Marker: SPPA 5230 – Dysphagia

Learning Objective: Identifies swallowing problems from videofluorographic evaluation

Courses/Activities Using this Marker: SPPA 5230 – Dysphagia

Learning Objective: Describes appropriate intervention for common oral and pharyngeal swallow disorders

Courses/Activities Using this Marker: SPPA 5230 – Dysphagia
IV – D. Knowledge of Prevention, Assessment, and Intervention of Cognitive Disorders

Learning Objective: Discusses modifications of treatment approaches based on client’s acquired cognitive deficits
Courses/Activities Using this Marker: SPPA 5130 – Aphasia

Learning Objective: Demonstrates treatment approaches based on client’s cognitive, sensory, and motor deficits
Courses/Activities Using this Marker: SPPA 5500 – AAC

IV – D. Knowledge of Prevention, Assessment, and Intervention of Social Communication Disorders

Learning Objective: Describes how to facilitate functional communication for adults
Courses/Activities Using this Marker: SPPA 5130 – Aphasia

Learning Objective: Describes how to facilitate social uses of language for children
Courses/Activities Using this Marker: SPPA 5280 – Preschool Language Intervention

IV – D. Knowledge of Prevention, Assessment, and Intervention with Alternative/Augmentative Communication Modalities

Learning Objective: Identifies appropriate low and high technology AAC strategies for children and adults
Courses/Activities Using this Marker: SPPA 5210 – AAC

Learning Objective: Discusses best communication modality options and appropriate communication supports for children and adults
Courses/Activities Using this Marker: SPPA 5210 – AAC

Learning Objective: Demonstrates treatment approaches based on client’s cognitive, sensory, and motor deficits
Courses/Activities Using this Marker: SPPA 5210 – AAC

Standard IV-E

The applicant must have demonstrated knowledge of standards of ethical conduct.

Implementation: The applicant must have demonstrated knowledge of the principles and rules of the current ASHA Code of Ethics.

IV – E. Knowledge of Ethics and Ethical Conduct

Learning Objective: Describes the purpose of the ASHA Code of Ethics and the 4 Principles of Ethics
Courses/Activities Using this Marker: SPPA 5380 – Professional Practice

Standard IV-F
The applicant must have demonstrated knowledge of processes used in research and of the integration of research principles into evidence-based clinical practice.

**Implementation:** The applicant must have demonstrated knowledge of the principles of basic and applied research and research design. In addition, the applicant must have demonstrated knowledge of how to access sources of research information and have demonstrated the ability to relate research to clinical practice.

**IV – F. Knowledge of Research**

**Learning Objective:** Explains experimental and descriptive research methods  
**Courses/Activities Using this Marker:** UG/Levelling (SPPA 4750 – Research Methods or equivalent)

**Learning Objective:** Applies research literature to treatment practice (i.e., rationales)  
**Courses/Activities Using this Marker:** SPPA 5030+5270/90 – Clinic

**Learning Objective:** Critically evaluates research literature methodology  
**Courses/Activities Using this Marker:** SPPA 5120 – Stuttering

**Standard IV-G**

The applicant must have demonstrated knowledge of contemporary professional issues.

**Implementation:** The applicant must have demonstrated knowledge of professional issues that affect speech-language pathology. Issues typically include trends in professional practice, academic program accreditation standards, ASHA practice policies and guidelines, and reimbursement procedures.

**IV – G. Knowledge of Professional Issues**

**Learning Objective:** Demonstrates knowledge on a wide range of professional issues, including policies, practices, and guidelines  
**Courses/Activities Using this Marker:** SPPA 5080 – Professional Practice

**Standard IV-H**

The applicant must have demonstrated knowledge of entry level and advanced certifications, licensure, and other relevant professional credentials, as well as local, state, and national regulations and policies relevant to professional practice.

**IV – H. Knowledge of Certification Issues**

**Learning Objective:** Describes relevant documentation required for professional credentials (state, national, and specialty recognition)  
**Courses/Activities Using this Marker:** SPPA 5080 – Professional Practice