

282—14.141(272) Minimum content requirements for teaching endorsements.

14.141(1) Agriculture. 5-12. Completion of 24 semester hours in agriculture to include coursework in agronomy, animal science, agricultural mechanics, and agricultural economics.

14.141(2) Art. K-8 or 5-12. Completion of 24 semester hours in art to include coursework in art history, studio art, and two- and three-dimensional art.

14.141(3) Business—all. 5-12. Completion of 30 semester hours in business to include 6 semester hours in accounting, 3 semester hours in business law to include contract law, 3 semester hours in computer and technical applications in business, 6 semester hours in marketing to include consumer studies, 3 semester hours in management, 6 semester hours in economics, and 3 semester hours in business communications to include formatting, language usage, and oral presentation. Coursework in entrepreneurship and in financial literacy may be a part of, or in addition to, the coursework listed above.

14.141(4) Business—office. Rescinded IAB 9/12/07, effective 10/17/07.

14.141(5) Business—marketing/management. Rescinded IAB 9/12/07, effective 10/17/07.

14.141(6) Driver education. 5-12. Completion of 9 semester hours in driver education to include coursework in accident prevention that includes drug and alcohol abuse; vehicle safety; and behind-the-wheel driving.

14.141(7) English/language arts.

a. K-8. Completion of 24 semester hours in English and language arts to include coursework in oral communication, written communication, language development, reading, children's literature, creative drama or oral interpretation of literature, and American literature.

b. 5-12. Completion of 24 semester hours in English to include coursework in oral communication, written communication, language development, reading, American literature, English literature and adolescent literature.

14.141(8) Foreign language. K-8 and 5-12. Completion of 24 semester hours in each foreign language for which endorsement is sought.

14.141(9) Health. K-8 and 5-12. Completion of 24 semester hours in health to include coursework in public or community health, consumer health, substance abuse, family life education, mental/emotional health, and human nutrition.

14.141(10) Family and consumer sciences—general. 5-12. Completion of 24 semester hours in family and consumer sciences to include coursework in human development, parenthood education, family studies, consumer resource management, textiles and apparel, housing, and foods and nutrition.

14.141(11) Industrial technology. 5-12. Completion of 24 semester hours in industrial technology to include coursework in manufacturing, construction, energy and power, graphic communications and transportation. The coursework is to include at least 6 semester hours in three different areas.

14.141(12) Journalism. 5-12. Completion of 15 semester hours in journalism to include coursework in writing, editing, production and visual communications.

14.141(13) Mathematics.

a. K-8. Completion of 24 semester hours in mathematics to include coursework in algebra, geometry, number theory, measurement, computer programming, and probability and statistics.

b. 5-12. Completion of 24 semester hours in mathematics to include a linear algebra or an abstract (modern) algebra course, a geometry course, a two-course sequence in calculus, a computer programming course, a probability and statistics course, and coursework in discrete mathematics.

14.141(14) Music.

a. K-8. Completion of 24 semester hours in music to include coursework in music theory (at least two courses), music history, and applied music.

b. 5-12. Completion of 24 semester hours in music to include coursework in music theory (at least two courses), music history (at least two courses), applied music, and conducting.

14.141(15) Physical education.

a. K-8. Completion of 24 semester hours in physical education to include coursework in human anatomy, human physiology, movement education, adapted physical education, physical education in

the elementary school, human growth and development of children related to physical education, and first aid and emergency care.

b. 5-12. Completion of 24 semester hours in physical education to include coursework in human anatomy, kinesiology, human physiology, human growth and development related to maturational and motor learning, adapted physical education, curriculum and administration of physical education, assessment processes in physical education, and first aid and emergency care.

14.141(16) Reading.

a. K-8 requirements in effect prior to September 1, 2007. Completion of 20 semester hours in reading to include at least 12 semester hours specifically in reading by course title which must include foundations in methods and materials for teaching reading in the elementary classroom, corrective reading, remedial reading, a supervised tutoring experience, and at least 8 hours of coursework from oral and written communication, language development, children's literature, and tests and measurement.

b. 5-12 requirements in effect prior to September 1, 2007. Completion of 20 semester hours in reading to include at least 12 semester hours specifically in reading by course title which must include foundations in methods and materials of teaching reading in the secondary classroom, corrective reading, reading in content areas, remedial reading, a supervised tutoring experience, and at least 8 hours of coursework from oral and written communication, the structure of language, adolescent literature, and tests and measurement.

c. K-8 requirements effective September 1, 2007. Completion of 24 semester hours in reading to include all of the following requirements:

(1) Foundations of reading. This requirement includes the following competencies:

1. The practitioner demonstrates knowledge of the psychological, sociocultural, and linguistic foundations of reading and writing processes and instruction.

2. The practitioner demonstrates knowledge of a range of research pertaining to reading, writing, and learning, including scientifically based reading research, and knowledge of histories of reading. The range of research encompasses research traditions from the fields of the social sciences and other paradigms appropriate for informing practice.

3. The practitioner demonstrates knowledge of the major components of reading, such as phonemic awareness, word identification, phonics, vocabulary, fluency, and comprehension, and effectively integrates curricular standards with student interests, motivation, and background knowledge.

(2) Reading in the content areas. This requirement includes the following competencies:

1. The practitioner demonstrates knowledge of text structure and the dimensions of content area vocabulary and comprehension, including literal, interpretive, critical, and evaluative.

2. The practitioner provides content area instruction in reading and writing that effectively uses a variety of research-based strategies and practices.

(3) Practicum. This requirement includes the following competencies:

1. The practitioner works with licensed professionals who observe, evaluate, and provide feedback on the practitioner's knowledge, dispositions, and performance of the teaching of reading and writing.

2. The practitioner effectively uses reading and writing strategies, materials, and assessments based upon appropriate reading and writing research and works with colleagues and families in the support of children's reading and writing development.

(4) Language development. This requirement includes the following competency: The practitioner uses knowledge of language development and acquisition of reading skills (birth through sixth grade), and the variations related to cultural and linguistic diversity to provide effective instruction in reading and writing.

(5) Oral communication. This requirement includes the following competencies:

1. The practitioner has knowledge of the unique needs and backgrounds of students with language differences and delays.

2. The practitioner uses effective strategies for facilitating the learning of Standard English by all learners.

(6) Written communication. This requirement includes the following competency: The practitioner uses knowledge of reading-writing-speaking connections; the writing process; the stages of spelling

development; the different types of writing, such as narrative, expressive, persuasive, informational and descriptive; and the connections between oral and written language development to effectively teach writing as communication.

(7) Reading assessment, diagnosis and evaluation. This requirement includes the following competencies:

1. The practitioner uses knowledge of a variety of instruments, procedures, and practices that range from individual to group and from formal to informal to alternative for the identification of students' reading proficiencies and needs, for planning and revising instruction for all students, and for communicating the results of ongoing assessments to all stakeholders.

2. The practitioner demonstrates awareness of policies and procedures related to special programs, including Title I.

(8) Children's nonfiction and fiction. This requirement includes the following competency: The practitioner uses knowledge of children's literature for:

1. Modeling the reading and writing of varied genres, including fiction and nonfiction; technology- and media-based information; and nonprint materials;

2. Motivating through the use of texts at multiple levels, representing broad interests, and reflecting varied cultures, linguistic backgrounds, and perspectives; and

3. Matching text complexities to the proficiencies and needs of readers.

(9) Reading instructional strategies. This requirement includes the following competency: The practitioner uses knowledge of a range of research-based strategies and instructional technology for designing and delivering effective instruction across the curriculum, for grouping students, and for selecting materials appropriate for learners at various stages of reading and writing development and from varied cultural and linguistic backgrounds.

d. 5-12 requirements effective September 1, 2007. Completion of 24 semester hours in reading to include all of the following requirements:

(1) Foundations of reading. This requirement includes the following competencies:

1. The practitioner demonstrates knowledge of the psychological, sociocultural, and linguistic foundations of reading and writing processes and instruction.

2. The practitioner demonstrates knowledge of a range of research pertaining to reading, writing, and learning, including scientifically based reading research, and knowledge of histories of reading. The range of research encompasses research traditions from the fields of the social sciences and other paradigms appropriate for informing practice.

3. The practitioner demonstrates knowledge of the major components of reading such as phonemic awareness, word identification, phonics, vocabulary, fluency, and comprehension, and integrates curricular standards with student interests, motivation, and background knowledge.

(2) Reading in the content areas. This requirement includes the following competencies:

1. The practitioner demonstrates knowledge of text structure and the dimensions of content area vocabulary and comprehension, including literal, interpretive, critical, and evaluative.

2. The practitioner provides content area instruction in reading and writing that effectively uses a variety of research-based strategies and practices.

(3) Practicum. This requirement includes the following competencies:

1. The practitioner works with licensed professionals who observe, evaluate, and provide feedback on the practitioner's knowledge, dispositions, and performance of the teaching of reading and writing.

2. The practitioner effectively uses reading and writing strategies, materials, and assessments based upon appropriate reading and writing research, and works with colleagues and families in the support of students' reading and writing development.

(4) Language development. This requirement includes the following competency: The practitioner uses knowledge of the relationship of language acquisition and language development with the acquisition and development of reading skills, and the variations related to cultural and linguistic diversity to provide effective instruction in reading and writing.

(5) Oral communication. This requirement includes the following competency: The practitioner demonstrates knowledge of the unique needs and backgrounds of students with language differences and uses effective strategies for facilitating the learning of Standard English by all learners.

(6) Written communication. This requirement includes the following competency: The practitioner uses knowledge of reading-writing-speaking connections to teach the skills and processes necessary for writing narrative, expressive, persuasive, informational, and descriptive texts, including text structures and mechanics such as grammar, usage, and spelling.

(7) Reading assessment, diagnosis and evaluation. This requirement includes the following competencies:

1. The practitioner uses knowledge of a variety of instruments, procedures, and practices that range from individual to group and from formal to informal to alternative for the identification of students' reading proficiencies and needs, for planning and revising instruction for all students, and for communicating the results of ongoing assessments to all stakeholders.

2. The practitioner also demonstrates awareness of policies and procedures related to special programs.

(8) Adolescent or young adult nonfiction and fiction. This requirement includes the following competency: The practitioner uses knowledge of adolescent or young adult literature for:

1. Modeling the reading and writing of varied genres, including fiction and nonfiction; technology-and media-based information; and nonprint materials;

2. Motivating through the use of texts at multiple levels, representing broad interests, and reflecting varied cultures, linguistic backgrounds and perspectives; and

3. Matching text complexities to the proficiencies and needs of readers.

(9) Reading instructional strategies. This requirement includes the following competency: The practitioner uses knowledge of a range of research-based strategies and instructional technology for designing and delivering instruction across the curriculum, for grouping students, and for selecting materials appropriate for learners at various stages of reading and writing development and from varied cultural and linguistic backgrounds.

14.141(17) Science.

a. Science—basic. K-8. Completion of at least 24 semester hours in science to include 12 hours in physical sciences, 6 hours in biology, and 6 hours in earth/space sciences.

(1) Competencies.

1. Understand the nature of scientific inquiry, its central role in science, and how to use the skills and processes of scientific inquiry.

2. Understand the fundamental facts and concepts in major science disciplines.

3. Be able to make conceptual connections within and across science disciplines, as well as to mathematics, technology, and other school subjects.

4. Be able to use scientific understanding when dealing with personal and societal issues.

(2) Reserved.

b. Biological science. 5-12. Completion of 24 semester hours in biological science or 30 semester hours in the broad area of science to include 15 semester hours in biological science.

c. Chemistry. 5-12. Completion of 24 semester hours in chemistry or 30 semester hours in the broad area of science to include 15 semester hours in chemistry.

d. Earth science. 5-12. Completion of 24 semester hours in earth science or 30 semester hours in the broad area of science to include 15 semester hours in earth science.

e. General science. 5-12. Completion of 24 semester hours in science to include coursework in biological science, chemistry, and physics.

f. Physical science. 5-12. Completion of 24 semester hours in physical sciences to include coursework in physics, chemistry, and earth science.

g. Physics. 5-12. Completion of 24 semester hours in physics or 30 semester hours in the broad area of science to include 15 semester hours in physics.

h. All science I. Grades 5-8. The holder of this endorsement must also hold the middle school endorsement listed under 14.140(15).

(1) Required coursework. Completion of at least 24 semester hours in science to include 6 hours in chemistry, 6 hours in physics or physical sciences, 6 hours in biology, and 6 hours in the earth/space sciences.

(2) Competencies.

1. Understand the nature of scientific inquiry, its central role in science, and how to use the skills and processes of scientific inquiry.

2. Understand the fundamental facts and concepts in major science disciplines.

3. Be able to make conceptual connections within and across science disciplines, as well as to mathematics, technology, and other school subjects.

4. Be able to use scientific understanding when dealing with personal and societal issues.

i. All science II. Grades 9-12.

(1) Required coursework.

1. Completion of one of the following endorsement areas listed under 14.21(17): biological 5-12 or chemistry 5-12 or earth science 5-12 or physics 5-12.

2. Completion of at least 12 hours in each of the other three endorsement areas.

(2) Competencies.

1. Understand the nature of scientific inquiry, its central role in science, and how to use the skills and processes of scientific inquiry.

2. Understand the fundamental facts and concepts in major science disciplines.

3. Be able to make conceptual connections within and across science disciplines, as well as to mathematics, technology, and other school subjects.

4. Be able to use scientific understanding when dealing with personal and societal issues.

14.141(18) Social sciences.

a. American government. 5-12. Completion of 24 semester hours in American government or 30 semester hours in the broad area of social sciences to include 15 semester hours in American government.

b. American history. 5-12. Completion of 24 semester hours in American history or 30 semester hours in the broad area of the social sciences to include 15 semester hours in American history.

c. Anthropology. 5-12. Completion of 24 semester hours in anthropology or 30 semester hours in the broad area of social sciences to include 15 semester hours in anthropology.

d. Economics. 5-12. Completion of 24 semester hours in economics or 30 semester hours in the broad area of the social sciences to include 15 semester hours in economics, or 30 semester hours in the broad area of business to include 15 semester hours in economics.

e. Geography. 5-12. Completion of 24 semester hours in geography or 30 semester hours in the broad area of the social sciences to include 15 semester hours in geography.

f. History. K-8. Completion of 24 semester hours in history to include at least 9 semester hours in American history and 9 semester hours in world history.

g. Psychology. 5-12. Completion of 24 semester hours in psychology or 30 semester hours in the broad area of social sciences to include 15 semester hours in psychology.

h. Social studies. K-8. Completion of 24 semester hours in social studies, to include coursework from at least three of these areas: history, sociology, economics, American government, psychology and geography.

i. Sociology. 5-12. Completion of 24 semester hours in sociology or 30 semester hours in the broad area of social sciences to include 15 semester hours in sociology.

j. World history. 5-12. Completion of 24 semester hours in world history or 30 semester hours in the broad area of social sciences to include 15 semester hours in world history.

k. All social sciences. 5-12. Effective July 1, 2000, completion of 51 semester hours in the social sciences to include 9 semester hours in each of American and world history, 9 semester hours in government, 6 semester hours in sociology, 6 semester hours in psychology other than educational psychology, 6 semester hours in geography, and 6 semester hours in economics.

14.141(19) Speech communication/theatre.

a. K-8. Completion of 20 semester hours in speech communication/theatre to include coursework in speech communication, creative drama or theatre, and oral interpretation.

b. 5-12. Completion of 24 semester hours in speech communication/theatre to include coursework in speech communication, oral interpretation, creative drama or theatre, argumentation and debate, and mass media communication.

14.141(20) Language arts 5-12. Completion of 40 semester hours in language arts to include coursework in the following areas:

a. Written communication.

(1) Develops a wide range of strategies and appropriately uses writing process elements (e.g., brainstorming, free-writing, first draft, group response, continued drafting, editing, and self-reflection) to communicate with different audiences for a variety of purposes.

(2) Develops knowledge of language structure (e.g., grammar), language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique, and discuss print and nonprint texts.

b. Oral communication.

(1) Understands oral language, listening, and nonverbal communication skills; knows how to analyze communication interactions; and applies related knowledge and skills to teach students to become competent communicators in varied contexts.

(2) Understands the communication process and related theories, knows the purpose and function of communication and understands how to apply this knowledge to teach students to make appropriate and effective choices as senders and receivers of messages in varied contexts.

c. Language development.

(1) Understands inclusive and appropriate language, patterns and dialects across cultures, ethnic groups, geographic regions and social roles.

(2) Develops strategies to improve competency in the English language arts and understanding of content across the curriculum for students whose first language is not English.

d. Young adult literature, American literature, and world literature.

(1) Reads, comprehends, and analyzes a wide range of texts to build an understanding of self as well as the cultures of the United States and the world in order to acquire new information, to respond to the needs and demands of society and the workplace, and for personal fulfillment. Among these texts are fiction and nonfiction, graphic novels, classic and contemporary works, young adult literature, and nonprint texts.

(2) Reads a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience.

(3) Applies a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. Draws on prior experience, interactions with other readers and writers, knowledge of word meaning and of other texts, word identification strategies, and an understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).

(4) Participates as a knowledgeable, reflective, creative, and critical member of a variety of literacy communities.

e. Creative voice.

(1) Understands the art of oral interpretation and how to provide opportunities for students to develop and apply oral interpretation skills in individual and group performances for a variety of audiences, purposes and occasions.

(2) Understands the basic skills of theatre production including acting, stage movement, and basic stage design.

f. Argumentation/debate.

(1) Understands concepts and principles of classical and contemporary rhetoric and is able to plan, prepare, organize, deliver and evaluate speeches and presentations.

(2) Understands argumentation and debate and how to provide students with opportunities to apply skills and strategies for argumentation and debate in a variety of formats and contexts.

g. Journalism.

(1) Understands ethical standards and major legal issues including First Amendment rights and responsibilities relevant to varied communication content. Utilizes strategies to teach students about

the importance of freedom of speech in a democratic society and the rights and responsibilities of communicators.

(2) Understands the writing process as it relates to journalism (e.g., brainstorming, questioning, reporting, gathering and synthesizing information, writing, editing, and evaluating the final media product).

(3) Understands a variety of forms of journalistic writing (e.g., news, sports, features, opinion, Web-based) and the appropriate styles (e.g., Associated Press, multiple sources with attribution, punctuation) and additional forms unique to journalism (e.g., headlines, cut lines, and/or visual presentations).

h. Mass media production.

(1) Understands the role of the media in a democracy and the importance of preserving that role.

(2) Understands how to interpret and analyze various types of mass media messages in order for students to become critical consumers.

(3) Develops the technological skills needed to package media products effectively using various forms of journalistic design with a range of visual and auditory methods.

i. Reading strategies (if not completed as part of the professional education core requirements).

(1) Uses a variety of skills and strategies to comprehend and interpret complex fiction, nonfiction and informational text.

(2) Reads for a variety of purposes and across content areas.