

006.40 Middle Level Grades Education

006.40A Grade Levels: 5 4–9

006.40B Endorsement Type: Field

006.40C Persons with this endorsement may teach ~~either: (a) any or all subjects in a self-contained classroom in~~ grades 5 4 through 9, ~~(classrooms in which students spend more than half the school day with one teacher who provides instruction in more than half of the subject-matter areas of the curriculum) or (b) the content areas of specialization in any organizational pattern in grades 4 through 9.~~

006.40D Certification Endorsement Requirements: This endorsement shall require a total of 54 ~~66~~ semester hours of which 18 ~~30~~ semester hours shall be in professional education courses, not including student teaching, related to middle level education and a minimum of:

1. 36 semester hours in one of four core academic areas as listed in 006.40D1, or two or more Content Areas of Specialization with
2. a minimum of 18 semester hours in each of two core academic areas as listed in 006.40D1, or
3. a minimum of 18 semester hours in one core academic area as listed in 006.40D1 and 18 hours in one area of specialization:  
English as a Second Language,  
Reading and Writing, or  
Special Education, which includes any portion of grades 5-9.

~~An endorsement in any of the Special Education endorsements, which includes any portion of grades 5-9, may be accepted in lieu of one Content Area of Specialization.~~ In addition, persons with this endorsement must complete coursework in all academic areas of the middle grades curriculum.

006.40D1 Core Academic Areas ~~Content Areas of Specialization~~  
include the following:

- 006.40D1a English Language Arts ~~Agricultural Education~~
- 006.40D1b Mathematics ~~Art~~
- 006.40D1c Science ~~Business Education~~
- 006.40D1d Social Science ~~Family and Consumer Sciences~~
- 006.40D1e ~~Foreign/World Language~~
- 006.40D1f ~~Health and Physical Education~~

~~006.40D1g—Industrial Technology~~  
~~006.40D1h—Language Arts~~  
~~006.40D1i—Mathematics~~  
~~006.40D1j—Natural Sciences~~  
~~006.40D1k—Social Science~~

006.40D2 In addition to the 54 semester hours listed above,  
candidates for this endorsement must complete cCoursework in all academic  
areas of the middle level grades curriculum which includes:

006.40D2a communication, including composition and speech,  
006.40D2b health and wellness,  
006.40D2c humanities including literature,  
006.40D2d mathematics,  
006.40D2e ~~natural~~ sciences,  
006.40D2f social sciences, and  
006.40D2g fine arts.

006.40E Endorsement Program Requirements: Nebraska teacher  
education institutions offering this endorsement program must have on file,  
within the institution, a plan which identifies the courses and the course  
completion requirements which the institution utilizes to grant credit toward  
completion of this endorsement.

006.40F Effective September 1, 2016, an applicant will be required to  
submit a passing score as set forth in Appendix C for the applicable content test  
for the first-time placement of this endorsement on a Nebraska certificate or  
permit.

**THE FOLLOWING ARE RECOMMENDED GUIDELINES FOR  
INCLUSION AS PART OF THE INSTITUTION'S PLAN  
UNDER THIS ENDORSEMENT.**

Through the courses identified in its plan, the institution must provide middle level  
teacher candidates with opportunities to demonstrate the dispositions and  
competencies required by the following guidelines. ~~The institution should prepare~~  
prospective teachers to:

**Standard 1.** A. Demonstrate knowledge and ~~an~~ understanding of, and be able to teach  
the concepts, skills, and processes of the Nebraska Content Standards in the areas of  
reading/writing, mathematics, science, and social studies for grades five through nine  
~~four and eight~~, and demonstrate knowledge of how these concepts, skills, and

processes relate to the Nebraska Content Standards beyond the eighth grade in the areas of reading/writing, mathematics, science, and social studies. ~~leading to the twelfth grade standards in the areas of reading/writing, mathematics, science, and social studies. Those prospective teachers, who select one or more of the above areas as their Content Area(s) of Specialization, should demonstrate in their content area of specialization both an understanding of and the ability to teach the concepts, skills, and processes of the Nebraska Content Standards for grades four and eight, and those beyond the eighth grade leading to the twelfth grade standards.~~

## **Standard 2. Young Adolescent Development**

Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.

### Element 1. Knowledge of Young Adolescent Development

Middle level teacher candidates demonstrate a comprehensive knowledge of young adolescent development. They use this understanding of the intellectual, physical, social, emotional, and moral characteristics, needs, and interests of young adolescents to create healthy, respectful, supportive, and challenging learning environments for all young adolescents, including those whose language and cultures are different from their own.

### Element 2. Knowledge of the Implications of Diversity on Young Adolescent Development

Middle level teacher candidates demonstrate their understanding of the implications of diversity on the development of young adolescents. They implement curriculum and instruction that is responsive to young adolescents' local, national, and international histories, language, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, socioeconomic status, etc.) and participate successfully in middle level practices that consider and celebrate the diversity of all young adolescents.

### Element 3. Implications of Young Adolescent Development for Middle Level Curriculum and Instruction

Middle level teacher candidates use their knowledge of young adolescent development when planning and implementing middle level curriculum and when selecting and using instructional strategies.

### Element 4. Implications of Young Adolescent Development for Middle Level Programs and Practices

Middle level teacher candidates apply their knowledge of young adolescent development when making decisions about their respective roles in creating and maintaining developmentally responsive learning environments. They demonstrate their ability to participate successfully in effective middle school organizational practices such as interdisciplinary team organization and advisory programs.

### **Standard 3. Middle Level Philosophy and School Organization**

Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.

#### Element 1. Middle Level Philosophical Foundations

Middle level teacher candidates demonstrate an understanding of the philosophical foundations of developmentally responsive middle level programs and schools.

#### Element 2. Middle Level Organization and Best Practices

Middle level teacher candidates utilize their knowledge of the effective components of middle level programs and schools to foster equitable educational practices and to enhance learning for all students (e.g., race, ethnicity, culture, age, appearance, ability, socioeconomic status, etc.) They demonstrate their ability to apply this knowledge and to function successfully within a variety of school organizational settings (e.g., grades K-8, 6-8, 7-12). Middle level teacher candidates perform successfully in middle level programs and practices such as interdisciplinary teaming, advisory programs, flexible block schedules, and common teacher planning time.

### **Standard 4. Middle Level Curriculum**

Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, socioeconomic status, etc.)

#### Element 1. Subject Matter Content Knowledge

Middle level teacher candidates demonstrate a depth and breadth of subject matter content knowledge in the subjects they teach (e.g., English/language arts, mathematics, science, social science). They incorporate information literacy skills and state-of-the-art technologies into teaching their subjects.

#### Element 2. Middle Level Student Standards

Middle level teacher candidates use their knowledge of local, state, and national standards to frame their teaching. They draw on their knowledge of these standards to design, implement, and evaluate developmentally responsive, meaningful, and challenging curriculum for all young adolescents.

#### Element 3. Interdisciplinary Nature of Knowledge

Middle level teacher candidates demonstrate the interdisciplinary nature of knowledge by helping all young adolescents make connections among subject

areas. They facilitate relationships among content, ideas, interests, and experiences by developing and implementing relevant, challenging, integrative, and exploratory curriculum. They provide learning opportunities that enhance information literacy (e.g., critical thinking, problem solving, evaluation of information gained) in their specialty fields (e.g., mathematics, social studies, science).

Element 4. Reading in the Content Area

Middle level teacher candidates plan, organize, deliver, and assess content area reading strategies, demonstrate techniques for content area and grade level appropriate vocabulary instruction, and develop essential, grade level, content specific comprehension strategies for reading complex text.

**Standard 5. Middle Level Instruction and Assessment**

Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, literacy skills, and technologies to meet the learning needs of all young adolescents.

Element 1. Content Pedagogy

Middle level teacher candidates use their knowledge of instruction and assessment strategies that are especially effective in the subjects they teach.

Element 2. Middle Level Instructional Strategies

Middle level teacher candidates employ a wide variety of effective teaching, learning, and assessment strategies. They use instructional strategies and technologies in ways that encourage exploration, creativity, and information literacy skills (e.g., critical thinking, problem solving, evaluation of information gained) so that young adolescents are actively engaged in their learning. They use instruction that is responsive to young adolescents' local, national, and international histories, language, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, socioeconomic status, etc.)

Element 3. Middle Level Assessment and Data-Informed Instruction

Middle level teacher candidates develop and administer assessments and use them as formative and summative tools to create meaningful learning experiences by assessing prior learning, implementing effective lessons, reflecting on young adolescent learning, and adjusting instruction based on the knowledge gained.

Element 4. Young Adolescent Motivation

Middle level teacher candidates demonstrate their ability to motivate all young adolescents and facilitate their learning through a wide variety of developmentally responsive materials and resources (e.g., technology, manipulative materials, information literacy skills, contemporary media). They establish equitable, caring, and productive learning environments for all young adolescents.

Middle Level candidates must have opportunities to demonstrate the following competencies in their selected core content area(s):

## 1. English Language Arts

### Standard 1. Content Knowledge

Candidates demonstrate knowledge of English language arts subject matter content that specifically includes literature and multimedia texts as well as knowledge of the nature of young adolescents as readers.

Element 1. Candidates are knowledgeable about texts—print and non-print texts, classic texts and contemporary texts, including young adult—that represent a range of world literatures, historical traditions, genres, and the experiences of different genders, ethnicities, and social classes; they are able to use literary theories to interpret and critique a range of texts.

Element 2. Candidates are knowledgeable about how young adolescents read texts and make meaning through interaction with media environments.

### Standard 2. Content Knowledge

Candidates demonstrate knowledge of English language arts subject matter content that specifically includes language and writing as well as knowledge of young adolescents as language users.

Element 1. Candidates can compose a range of formal and informal texts taking into consideration the interrelationships among form, audience, context, and purpose; candidates understand that writing is a recursive process; candidates can use contemporary technologies and/or digital media to compose multimodal discourse.

Element 2. Candidates know the conventions of English language as they relate to various rhetorical situations (grammar, usage, and mechanics); they understand the concept of dialect and are familiar with relevant grammar systems (e.g., descriptive and prescriptive); they understand principles of language acquisition; they recognize the influence of English language history on ELA content; and they understand the impact of language on society.

Element 3. Candidates are knowledgeable about how young adolescents compose texts and make meaning through interaction with media environments.

### Standard 3. Content Pedagogy: Planning Literature and Reading Instruction in English Language Arts

Candidates plan instruction and design assessments for reading and the study of literature to promote learning for all students.

Element 1. Candidates use their knowledge of theory, research, and practice in English Language Arts to plan standards-based, coherent and relevant learning experiences utilizing a range of different texts—across

genres, periods, forms, authors, cultures, and various forms of media—and instructional strategies that are motivating and accessible to all young adult students, including English language learners, students with special needs, students from diverse language and learning backgrounds, those designated as high achieving, and those at risk of failure.

Element 2. Candidates design a range of authentic assessments (e.g., formal and informal, formative and summative) of reading and literature that demonstrate an understanding of how learners develop and that address interpretive, critical, and evaluative abilities in reading, writing, speaking, listening, viewing, and presenting.

Element 3. Candidates plan standards-based, coherent and relevant learning experiences in reading that reflect knowledge of current theory and research about the teaching and learning of reading and that utilize individual and collaborative approaches and a variety of reading strategies.

Element 4. Candidates design or knowledgeably select appropriate reading assessments that inform instruction by providing data about student interests, reading proficiencies, and reading processes.

Element 5. Candidates plan instruction that incorporates knowledge of language—structure, history, and conventions—to facilitate students' comprehension and interpretation of print and non-print texts.

Element 6. Candidates plan instruction which, when appropriate, reflects curriculum integration and incorporates interdisciplinary teaching methods and materials.

Standard 4. Content Pedagogy: Planning Writing and Composition Instruction in English Language Arts

Candidates plan instruction and design assessments for composing texts (i.e., oral, written, and visual) to promote learning for all students.

Element 1. Candidates use their knowledge of theory, research, and practice in English Language Arts to plan standards-based, coherent and relevant composing experiences that utilize individual and collaborative approaches and contemporary technologies and reflect an understanding of writing processes and strategies in different genres for a variety of purposes and audiences.

Element 2. Candidates design a range of assessments for young adolescent students that promote their development as writers, are appropriate to the writing task, and are consistent with current research and theory. Candidates are able to respond to student writing in process

and to finished texts in ways that engage students' ideas and encourage their growth as writers over time.

Element 3. Candidates design instruction related to the strategic use of language conventions (grammar, usage, and mechanics) in the context of young adolescent students' writing for different audiences, purposes, and modalities.

Element 4. Candidates design instruction that incorporates young adolescent students' home and community languages to enable skillful control over their rhetorical choices and language practices for a variety of audiences and purposes.

Standard 5. Learners and Learning: Implementing English Language Arts Instruction  
Candidates plan, implement, assess, and reflect on research-based instruction that increases motivation and active student engagement, builds sustained learning of English language arts, and responds to diverse students' context-based needs.

Element 1. Candidates plan and implement instruction based on English Language Arts curricular requirements and standards, school and community contexts, and knowledge about students' linguistic and cultural backgrounds.

Element 2. Candidates use data about their students' individual differences, identities, and funds of knowledge for literacy learning to create inclusive learning environments that contextualize curriculum and instruction and help all students participate actively in their own learning in English Language Arts.

Element 3. Candidates differentiate instruction based on students' self-assessments and formal and informal assessments of learning in English language arts; candidates communicate with students about their performances in ways that actively involve them in their own learning.

Element 4. Candidates select, create, and use a variety of instructional strategies and teaching resources, including contemporary technologies and digital media, consistent with what is currently known about young adolescent student learning in English Language Arts.

Standard 6. Professional Knowledge and Skills  
Candidates demonstrate knowledge of how theories and research about social justice, diversity, equity, student identities, and schools as institutions can enhance young adolescent students' opportunities to learn in English Language Arts.

Element 1. Candidates plan and implement English language arts and literacy instruction that promotes social justice and critical engagement with complex issues related to maintaining a diverse, inclusive, and equitable society.

Element 2. Candidates use knowledge of theories and research to plan instruction responsive to young adolescent students' local, national and international histories, individual identities (e.g., race, ethnicity, age, appearance, abilities, socioeconomic status, community environment, etc.), and languages as they affect students' opportunities to learn in English Language Arts.

Standard 7. Professional Knowledge and Skills

Candidates are prepared to interact knowledgeably with students, families, and colleagues based on social needs and institutional roles, engage in leadership and/or collaborative roles in English Language Arts professional learning communities, and actively develop as a professional educator.

Element 1. Candidates model literate and ethical practices in English Language Arts teaching, and engage in/reflect on a variety of experiences related to English Language Arts.

Element 2. Candidates engage in and reflect on a variety of experiences related to English Language Arts that demonstrate understanding of and readiness for leadership, collaboration, ongoing professional development, and community engagement.

**2. Mathematics**

Standard 1. Content Knowledge

Effective teachers of middle grades mathematics demonstrate and apply knowledge of major mathematics concepts, algorithms, procedures, connections, and applications within and among mathematical content domains.

Element 1. Demonstrate and apply knowledge of major mathematics concepts, algorithms, procedures, applications in varied contexts, and connections within and among mathematical domains (Number, Algebra, Geometry, Trigonometry, Statistics, Probability, and Calculus) as outlined in the *National Council of Teachers of Mathematics (NCTM) CAEP Mathematics Content for Middle Grades.*

Standard 2. Mathematical Practices

Effective teachers of middle grades mathematics solve problems, represent mathematical ideas, reason, prove, use mathematical models, attend to precision, identify elements of structure, generalize, engage in mathematical communication, and make connections as essential mathematical practices. They understand that these practices intersect with mathematical content and that understanding relies on the ability to demonstrate these practices within and among mathematical domains and in their teaching.

Element 1. Use problem solving to develop conceptual understanding, make sense of a wide variety of problems and persevere in solving them.

apply and adapt a variety of strategies in solving problems confronted within the field of mathematics and other contexts, and formulate and test conjectures in order to frame generalizations.

Element 2. Reason abstractly, reflectively, and quantitatively with attention to units, constructing viable arguments and proofs, and critiquing the reasoning of others; represent and model generalizations using mathematics; recognize structure and express regularity in patterns of mathematical reasoning; use multiple representations to model and describe mathematics; and utilize appropriate mathematical vocabulary and symbols to communicate mathematical ideas to others.

Element 3. Formulate, represent, analyze, and interpret mathematical models derived from real-world contexts or mathematical problems.

Element 4. Organize mathematical thinking and use the language of mathematics to express ideas precisely, both orally and in writing to multiple audiences.

Element 5. Demonstrate the interconnectedness of mathematical ideas and how they build on one another and recognize and apply mathematical connections among mathematical ideas and across various content areas and real-world contexts.

Element 6. Model how the development of mathematical understanding within and among mathematical domains intersects with the mathematical practices of problem solving, reasoning, communicating, connecting, and representing.

### Standard 3. Content Pedagogy

Effective teachers of middle grades mathematics apply knowledge of curriculum standards for mathematics and their relationship to student learning within and across mathematical domains. They incorporate research-based mathematical experiences and include multiple instructional strategies and mathematics-specific technological tools in their teaching to develop all students' mathematical understanding and proficiency. They provide students with opportunities to do mathematics – talking about it and connecting it to both theoretical and real-world contexts. They plan, select, implement, interpret, and use formative and summative assessments for monitoring student learning, measuring student mathematical understanding, and informing practice.

Element 1. Apply knowledge of curriculum standards for middle grades mathematics and their relationship to student learning within and across mathematical domains.

Element 2. Analyze and consider research in planning for and leading students in rich mathematical learning experiences.

Element 3. Plan lessons and units that incorporate a variety of strategies, differentiated instruction for diverse populations, and mathematics-specific and instructional technologies in building all students' conceptual understanding and procedural proficiency.

Element 4. Provide students with opportunities to communicate about mathematics and make connections among mathematics, other content areas, everyday life, and the workplace.

Element 5. Implement techniques related to student engagement and communication including selecting high quality tasks, guiding mathematical discussions, identifying key mathematical ideas, identifying and addressing student misconceptions, and employing a range of questioning strategies.

Element 6. Plan, select, implement, interpret, and use formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students.

Element 7. Monitor students' progress, make instructional decisions, and measure students' mathematical understanding and ability using formative and summative assessments.

#### Standard 4. Mathematical Learning Environment

Effective teachers of middle grades mathematics exhibit knowledge of pre-adolescent and adolescent learning, development, and behavior. They use this knowledge to plan and create sequential learning opportunities grounded in mathematics education research where students are actively engaged in the mathematics they are learning and building from prior knowledge and skills. They demonstrate a positive disposition toward mathematical practices and learning, include culturally relevant perspectives in teaching, and demonstrate equitable and ethical treatment of and high expectations for all students. They use instructional tools such as manipulatives, digital tools, and virtual resources to enhance learning while recognizing the possible limitations of such tools.

Element 1. Exhibit knowledge of pre-adolescent and adolescent learning, development, and behavior and demonstrate a positive disposition toward mathematical processes and learning.

Element 2. Plan and create developmentally appropriate, sequential, and challenging learning opportunities grounded in mathematics education research in which students are actively engaged in building new knowledge from prior knowledge and experiences.

Element 3. Incorporate knowledge of individual differences and the cultural and language diversity that exists within classrooms and include culturally relevant perspectives as a means to motivate and engage students.

Element 4. Demonstrate equitable and ethical treatment of and high expectations for all students.

Element 5. Apply mathematical content and pedagogical knowledge to select and use instructional tools such as manipulatives and physical models, drawings, virtual environments, spreadsheets, presentation tools, and mathematics-specific technologies (e.g., graphing tools and interactive geometry software); and make sound decisions about when such tools enhance teaching and learning, recognizing both the insights to be gained and possible limitations of such tools.

Standard 5. Impact on Student Learning

Effective teachers of middle grades mathematics provide evidence demonstrating that as a result of their instruction, middle grades students' conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and application of major mathematics concepts in varied contexts have increased. These teachers support the continual development of a positive disposition toward mathematics. They show that new student mathematical knowledge has been created as a consequence of their ability to engage students in mathematical experiences that are developmentally appropriate, require active engagement, and include mathematics-specific technology in building new knowledge.

Element 1. Verify that middle grades students demonstrate conceptual understanding; procedural fluency; the ability to formulate, represent, and solve problems; logical reasoning and continuous reflection on that reasoning; productive disposition toward mathematics; and the application of mathematics in a variety of contexts within major mathematical domains.

Element 2. Engage students in developmentally appropriate mathematical activities and investigations that require active engagement and include mathematics-specific technology in building new knowledge.

Element 3. Collect, organize, analyze, and reflect on diagnostic, formative, and summative assessment evidence and determine the extent to which students' mathematical proficiencies have increased as a result of their instruction.

Standard 6. Professional Knowledge and Skills

Effective teachers of middle grades mathematics are lifelong learners and recognize that learning is often collaborative. They participate in professional development experiences specific to mathematics and mathematics education, draw upon mathematics education research to inform practice, continuously reflect on their practice, and utilize resources from professional mathematics organizations.

Element 1. Take an active role in their professional growth by participating in professional development experiences that directly relate to the learning and teaching of mathematics.

Element 2. Engage in continuous and collaborative learning that draws upon research in mathematics education to inform practice; enhance learning opportunities for all students' mathematical knowledge development; involve colleagues, other school professionals, families, and various stakeholders; and advance their development as a reflective practitioner.

Element 3. Utilize resources from professional mathematics education organizations such as print, digital, and virtual resources/collections.

### **3. Science**

#### **Standard 1. Content Knowledge**

Effective teachers of science understand and articulate the knowledge and practices of contemporary science. They interrelate and interpret important concepts, ideas, and applications in their fields of licensure.

Element 1. Understand the major concepts, principles, theories, laws, and interrelationships of their fields of licensure and supporting fields as recommended by the National Science Teachers Association.

Element 2. Understand the central concepts of the supporting disciplines and the supporting role of science-specific technology.

Element 3. Show an understanding of state and national curriculum standards and their impact on the content knowledge necessary for teaching middle level students.

#### **Standard 2. Content Pedagogy**

Effective teachers of science understand how students learn and develop scientific knowledge. They use scientific inquiry to develop this knowledge for all students.

Element 1. Plan multiple lessons using a variety of inquiry approaches that demonstrate their knowledge and understanding of how all students learn science.

Element 2. Include active inquiry lessons where students collect and interpret data in order to develop and communicate concepts and understand scientific processes, relationships and natural patterns from empirical experiences. Applications of science-specific technology are included in the lessons when appropriate.

Element 3. Design instruction and assessment strategies that confront and address naïve concepts/preconceptions.

### Standard 3. Learning Environments

Effective teachers of science are able to plan for engaging all students in science learning by setting appropriate goals that are consistent with knowledge of how students learn science and are aligned with state and national standards. The plans reflect the nature and social context of science, inquiry, and appropriate safety considerations. Candidates design and select learning activities, instructional settings, and resources—including science-specific technology, to achieve those goals; and they plan fair and equitable assessment strategies to evaluate if the learning goals are met.

Element 1. Use a variety of strategies that demonstrate the candidates' knowledge and understanding of how to select the appropriate teaching and learning activities – including laboratory or field settings and applicable instruments and/or technology – to allow access so that all students learn. These strategies are inclusive and motivating for all students.

Element 2. Develop lesson plans that include active inquiry lessons where students collect and interpret data using applicable science-specific technology in order to develop concepts, understand scientific processes, relationships and natural patterns from empirical experiences. These plans provide for equitable achievement of science literacy for all students.

Element 3. Plan fair and equitable assessment strategies to analyze student learning and to evaluate if the learning goals are met. Assessment strategies are designed to continuously evaluate preconceptions and ideas that students hold and the understandings that students have formulated.

Element 4. Plan a learning environment and learning experiences for all students that demonstrate chemical safety, safety procedures, and the ethical treatment of living organisms within their licensure area.

### Standard 4. Safety

Effective teachers of science can, in a middle level classroom setting, demonstrate and maintain chemical safety, safety procedures, and the ethical treatment of living organisms needed in the middle level science classroom.

Element 1. Design activities in a middle level classroom that demonstrate the safe and proper techniques for the preparation, storage, dispensing, supervision, and disposal of all materials used within their subject area science instruction.

Element 2. Design and demonstrate activities in a middle level classroom that demonstrate an ability to implement emergency procedures and the maintenance of safety equipment, policies, and procedures that comply with established state and/or national guidelines. Candidates ensure safe science activities appropriate for the abilities of all students.

Element 3. Design and demonstrate activities in a middle level classroom that demonstrate ethical decision-making with respect to the treatment of all living organisms in and out of the classroom. They emphasize safe, humane, and ethical treatment of animals and comply with the legal restrictions on the collection, keeping, and use of living organisms.

Standard 5. Impact on Student Learning

Effective teachers of science provide evidence to show that middle level students' understanding of major science concepts, principles, theories, and laws have changed as a result of instruction by the candidate and that student knowledge is at a level of understanding beyond memorization. Candidates provide evidence for the diversity of students they teach.

Element 1. Collect, organize, analyze, and reflect on diagnostic, formative, and summative evidence of a change in mental functioning demonstrating that scientific knowledge is gained and/or corrected.

Element 2. Provide data to show that middle level students are able to distinguish science from nonscience, understand the evolution and practice of science as a human endeavor, and critically analyze assertions made in the name of science.

Element 3. Engage students in developmentally appropriate inquiries that require them to develop concepts and relationships from their observations, data, and inferences in a scientific manner.

Standard 6. Professional Knowledge and Skills

Effective teachers of science strive continuously to improve their knowledge and understanding of the ever changing knowledge base of both content and science pedagogy, including approaches for addressing inequities and inclusion for all students in science. They identify with and conduct themselves as part of the science education community.

Element 1. Engage in professional development opportunities in their content field such as talks, symposiums, research opportunities, or projects within their community.

Element 2. Engage in professional development opportunities such as conferences, research opportunities, or projects within their community.

#### 4. Social Sciences

Standard 1. The middle level teacher candidate will demonstrate knowledge and understanding of the four major 'motifs' or concerns of young adolescents and make connections with the social sciences to address those 'motifs', which include:

1) To meet students' concern with self, including development of self-esteem and a strong sense of identity, the teacher candidate will:

- a. Acquire appropriate skills and attitudes to be a lifelong learner;
  - b. Communicate effectively;
  - c. Conduct activities necessary for research, critical thinking, and problem solving;
  - d. Recognize and capitalize upon the relationships between school subjects, as well as integrate experiences with academic knowledge;
  - e. Gain awareness through the use of primary sources.
- 2) To meet students' concern for right and wrong and development of ethics, the teacher candidate will:
- a. Show a strong commitment to democratic values and ethical standards;
  - b. Think critically and analyze one's own thoughts and actions.
- 3) To meet students' concern for others and development of group and other-centeredness, the teacher candidate will:
- a. Function effectively as a member of a variety of political, economic, and social groups such as the family, marketplace, and the community;
  - b. Show efficacy in analyzing and participating in contemporary affairs, public policy matters, and global issues;
  - c. Understand the significance of the past to one's own life and to current social issues.
- 4) To meet student's concern for the world and development of a global perspective, the teacher candidate will:
- a. Demonstrate respect for cultural diversity, knowledge of diverse cultures, and intercultural competencies;
  - b. Understand and appreciate the delicate relationship between humans and the natural world;
  - c. Demonstrate knowledge of temporal and spatial relationships and of the world as a dynamic system.

Standard 2. The middle level teacher candidate will demonstrate knowledge and an understanding of the unifying concepts and processes of the social sciences, including being able to:

- 1) Communicate – The teacher candidate will:
  - a. Listen, read critically, interpret, translate, and express ideas and information in both group and interpersonal communication.
- 2) Inquire – The teacher candidate will:
  - a. Formulate and clarify questions, investigate problems, and develop rational conclusions supported by evidence.
  - b. Recognize there are various perspectives in the area of inquiry.
  - c. Recognize there is bias in others and themselves.
  - d. Recognize the value of critical and creative thinking.

- 3) Participate – The teacher candidate will:
- a. Act both individually and collaboratively in order to solve problems, make decisions, and negotiate and enact plans for action in ways that respect and value the customs, beliefs, and practices of others.
  - b. Take responsibility for individual and group work.
  - c. Respond to class, school, community, state, or national public issues.
  - d. Value the importance of taking action to support reasonable citizenship.

Standard 3. The middle level teacher candidate will demonstrate knowledge and an understanding of empowering and engaging social studies teaching which includes:

- 1) Providing meaningful experiences, which encourage students to learn through purposeful experiences, designed around stimulating ideas, social issues and themes, and discourages the memorization of disconnected pieces of information.
- 2) Providing significant experiences which are student-centered, age appropriate, and centered around truly significant events, concepts, and principles that students need to know and apply in their everyday lives.
- 3) Providing challenging experiences, which involve modeling high expectations for their students and themselves, promoting a thoughtful approach to inquiry, and demanding well-reasoned arguments.
- 4) Providing active experiences which encourage students to assume increasing responsibility for managing their own learning. Exploration, investigation, critical and creative thinking, problem solving, discussion and debate, and reflection are essential elements of this principle. This active process of constructing meaning encourages lifelong learning.
- 5) Providing integrative social studies instruction, which crosses disciplinary borders to explore issues and events, while using and reinforcing informational, technological, and application skills. This approach facilitates the study of the cultural and physical environment by making appropriate, meaningful, and evident connections to the human disciplines and to the concepts of time, space, continuity, and change.
- 6) Providing issues-based social studies which considers the ethical dimensions of issues and addresses controversial topics. It encourages consideration of opposing points of view, respect for well-supported positions, sensitivity to cultural similarities and differences, and a commitment to social responsibility and action.

Standard 4. The middle level teacher candidate will demonstrate knowledge and understanding of the learning context of the middle grades social studies classroom that is inclusive and inviting; emphasizes respect for diversity; encourages engagement and interactivity; uses relevant and significant resource-based learning; expands literacy through social studies; integrates technology and social studies; applies a variety of

research-based instructional approaches and strategies; and assesses and evaluates student learning using a variety of research-based assessment strategies.

Standard 5. The middle level teacher candidate will demonstrate knowledge and understanding of and be able to teach the following social science disciplines at the middle level:

1) Civics

- a. Develop and apply knowledge of responsible citizenship within local, state, and national levels, including constitutional government, citizen rights and responsibilities, political processes, public policy, and judicial systems.

2) Economics

- a. Develop and apply knowledge of economic decisions within the American economy and the impact within local, state, national, and international levels, including marketplace operation, economic structure, role of government, and personal finance.

3) Geography

- a. Develop and apply spatial perspective and geographic skills to make informed decisions regarding issues and current events at local, state, national and international levels, taking into account the world in spatial terms, places and regions, physical systems, human systems, human/environment interactions, and application of geography to issues and events.

4) History

- a. Develop and apply historical knowledge and skills to research, analyze, and understand key concepts of past, current, and potential issues and events at the local, state, national, and international levels, including chronological thinking, historical comprehension, multiple perspectives, historical analysis and interpretation, and historical research skills.

Middle Level Guidelines based on the Association for Middle Level Education (AMLE) Teacher Preparation Standards (2012).

Middle Level core academic content guidelines based on National Council of Teachers of English Standards (2012), National Council of Teachers of Mathematics Standards for Middle Grades Initial Preparation (2012), National Science Teachers Association Standards for Middle Grades Preservice Teachers (2012), and National Standards for Social Studies Teachers (2002).

Summary of Middle Grades *Ad Hoc* Meetings Discussions—6.23.14 and 7.28.14

**Strengths of Current MG Endorsement:**

- NE has the endorsement
- Students, especially females, are maturing at younger ages
- Emphasis of endorsement is on young adolescent growth and development vs. older adolescent growth and development
- There are teachers who want to work with the middle school age group
- Transition from elementary school to high school
- Flexibility needed for schools, depending on numbers of students—need people who can teach two content areas
- Offers better professional growth for MG endorsed teachers
- Schools are looking for MG endorsed applicants, but numbers are not there. (Number of Middle Grades initial endorsements in Nebraska has seen a significant decline over the past five years.)

**Weaknesses of MG Endorsement:**

- Have to take all Elem. Ed pedagogy courses—is that necessary?
- Needs to be a pathway for Elem. Ed and Secondary teachers to also get the MG endorsement.
- Are dual endorsements a possibility?
- K-12 endorsements difficult to include MG training
- Secondary teachers generally aren't looking to do MG except as a last resort for a job
- Content knowledge at middle grades level is lacking
- Flexibility?
- Looking more at output rather than input
- The MG endorsement allows a teacher to teach anything, grades 4-9
- Financial constraints—'sharing teachers' with secondary/eled level helps school budgets
- True MG schools vs. combined secondary/MG school
- Teachers do not have enough background to teach reading /literacy skills
- ELL / Diversity lacking
- Current depth of Guidelines indicators is weak in areas of specializations (especially Social Sciences area)

**Thoughts/Questions:**

- Content test—NE will require this for MG stand alone endorsement. At this time, content tests are not required for supplemental endorsements, but may be in the future.
- Supplemental endorsement can't stand alone, but is it an option for the MG endorsement?
- In the near future student achievement will most likely be tied to the teacher and tied to the institution where the teacher was prepared.
- High achieving MG schools—students do better at schools with a good Middle School philosophy and structure. (NE lists 8 districts with specific 5-8 MG—most are smaller schools.)
- Are we talking about a MG philosophy endorsement, vs. having skills to effectively teach in the Middle Grades?
- How much middle grades background does a teacher training program include?

**Stand-Alone Endorsement:**

- If it is a supplemental, what would # of hours be? (24 credit hours would be highest number.)
- Committee would like to see it continue as a stand-alone endorsement.
- Content test would be required to have a stand-alone endorsement placed on a certificate, effective 9.1.15.
- 

**Grade Levels:**

- Leave 4<sup>th</sup> grade off as it is difficult to cover, since it is a transition year
- Leave 9<sup>th</sup> grade off?
- If endorsement is 5-8, do get 4<sup>th</sup> & 9<sup>th</sup> grade years allowance? (Rule 10) Each school has to meet or exceed the required % of teachers assigned in their endorsed area at each level— Secondary (80%), MG (85%), and Elementary (90%).
- Keep grade levels at 4-9? No votes
- Committee pretty evenly split on making this a Grades 5-8 or Grades 5-9 endorsement. Katt suggested Grades 5-8 for now, and revisit this.

**Rule (gray box) Suggestions from Ad Hoc Committee members:**

- Include Reading and ESL as areas of specialization; Would Provisional ESL be an option?
- Keep 4 core areas, drop all the rest. Career Education area endorsements are now 6-12, so Agriculture, Business, FACS, and IT can be eliminated.
- Make it 36 credit hour in one content area, or 18-18 credit hours in two content areas.
- What about requiring 24 credit hours in one content area and 12 credit hours in another content area?

**July 28 Meeting Notes:**

- Ad Hoc Committee decision is to move both a stand-alone field endorsement and a supplemental endorsement forward. NDE staff will send out final proposals for committee review prior to October 1. Proposed endorsements will have to be posted for NCTE Executive Committee by mid-December.
- Grade Levels: 5 – 9 (Katt indicated NCTE might choose 5-8 or 6-8.)
- Committee decision: AMLE Standard 5 does not need to be included in Guidelines. Do need to make sure that reading in the content area is included.
- Content testing would be required for the stand alone endorsement, but not for the supplemental endorsement (at this time.) Madsen indicated there are two possible choices for a Praxis II Middle Grades content test. In the past, a committee comprised of practitioners and higher education faculty was called to make a recommendation as to which test to use if there was no Multi-state Standard Setting available, along with suggestions from the Nebraska ETS Client Relations Director. Further investigation will be needed.

**Middle Level Grades Education  
 Endorsement Guidelines  
 To Accompany Rule 24  
 (Adopted by the State Board  
 of Education on \_\_/\_\_/\_\_)**

**MIDDLE GRADES NCTE *Ad Hoc* Committee Members**

Meeting #1 – Monday, June 23, 2014 – 9:30 A.M.— 4:00 P.M. / NCSA, Lincoln, NE

Meeting # 2 – Monday, July 28, 2014 – 9:30 A.M. – 4:00 P.M. / NCSA, Lincoln, NE

Ad Hoc Committee Requirements	Ad Hoc Committee Members
<b>Ad Hoc Chair</b>	Sharon Katt, NDE <a href="mailto:sharon.katt@nebraska.gov">sharon.katt@nebraska.gov</a>
<b>Current Teachers—</b> Currently endorsed and employed practitioners in approved or accredited public or private schools in the endorsement area at the grade levels under consideration.	1. Jodie Emerson – Morton Magnet MS, OPS <a href="mailto:Jodie.Emerson@ops.org">Jodie.Emerson@ops.org</a> 2. Elizabeth (Liz) Boyle – Walnut MS, Grand Island <a href="mailto:eboyle@gips.org">eboyle@gips.org</a>
<b>Faculty Members—</b> Faculty members from a college of DOE who are teaching professional education courses or serve as the Certification Official at an approved educator preparation institution.	1. Bill Lopez, UN-L <a href="mailto:wlopez2@unl.edu">wlopez2@unl.edu</a> 2. Kathleen Wheeler, Concordia – June 23 only Beth Pelster, Concordia
<b>Specialists in the Content Area—</b> Might include Arts and Sciences college faculty or persons drawn from professional practice in the endorsement area.	1. Karen Enos, Chadron State <a href="mailto:kenos@csc.edu">kenos@csc.edu</a> 2. Patsy Brunner, UNK <a href="mailto:brunerpk@unk.edu">brunerpk@unk.edu</a>
<b>Administrators—</b> Administrative or supervisory personnel from approved or accredited public or private schools with responsibility for supervision, leadership, or personnel functions at the grade levels and/or in the content area.	1. Dave Essink, Hastings MS (Principal) <a href="mailto:dessink@esu9.org">dessink@esu9.org</a> 2. Michael Smith, Bellevue Lewis and Clark MS <a href="mailto:michael.smith@bpsne.net">michael.smith@bpsne.net</a>
<b>NCTE Representation—</b> Representation from the NCTE Standing Committee to which the endorsement has been assigned.	1. Kevin Peters, NDE Director of Certification <a href="mailto:kevin.peters@nebraska.gov">kevin.peters@nebraska.gov</a> 2. Lyn Forester, NCTE (Committee B and Certification Officer) <a href="mailto:lyn.forester@doane.edu">lyn.forester@doane.edu</a>
<b>NDE Representative with responsibilities related to the endorsement area.</b>	1. Rick Moses, NDE <a href="mailto:rick.l.moses@nebraska.gov">rick.l.moses@nebraska.gov</a>
<b>Representatives of national/state specialty professional associations or professionals drawn from areas of employment related to the content area.</b>	1. Chris Stogill, NAMLE Board Member, Otte Blair Middle School Principal <a href="mailto:chris.stogdill@blairschools.org">chris.stogdill@blairschools.org</a> 2. Kristi Bundy, Ashland-Greenwood MS (NE Teacher of the Year—6 <sup>th</sup> grade Science) <a href="mailto:kristi.bundy@agps.org">kristi.bundy@agps.org</a> 3. Joey Zbylut-Birky, NAMLE Exec Dir

	<a href="mailto:josephine.zblut-birky@ops.org">josephine.zblut-birky@ops.org</a>
Additional P-12 school practitioners or higher education faculty to equalize the representation between these two groups.	1. Ryan Escamilla, LPS Pound MS <a href="mailto:mescami@lps.org">mescami@lps.org</a> 2. Lana Dummer, Aurora Middle School <a href="mailto:ldummer@4rhuskies.org">ldummer@4rhuskies.org</a> (NAMLE Board)
A NDE designee, who will be a non-voting member and serve as a consultant for the <i>ad hoc</i> committee.	Pat Madsen, NDE <a href="mailto:pat.madsen@nebraska.gov">pat.madsen@nebraska.gov</a>

(Guidelines from 2000 Middle Grades endorsement)

- ~~B. Demonstrate academic background knowledge in the following areas and be able to utilize the knowledge, skills, and processes of:~~
- ~~1. communication, including composition and speech;~~
  - ~~2. health and wellness;~~
  - ~~3. humanities, including literature;~~
  - ~~4. mathematics;~~
  - ~~5. natural sciences;~~
  - ~~6. social sciences; and~~
  - ~~7. fine arts.~~
- ~~C. In a minimum of 30 semester credit hours of professional education coursework the program should prepare prospective teachers to:~~
- ~~1. demonstrate an understanding of and be able to apply knowledge of the growth and development of young adolescents with a range of abilities and disabilities including:
 
    - ~~a. the physical, intellectual, emotional, and social development of young adolescents, within social and cultural contexts;~~
    - ~~b. typical and atypical patterns in growth and development; and~~
    - ~~c. changes in family settings, social contexts, threats to health and safety, and risk behaviors in contemporary society that affect healthy development of young adolescents.~~~~
  - ~~2. demonstrate developmentally appropriate methodological skills and strategies for teaching the middle level core subject areas, including reading and language arts, mathematics, science, social sciences, and the fine arts.~~
  - ~~3. demonstrate developmentally appropriate methodological skills and strategies for integrating two or more of the following content areas:
 
    - ~~a. Agricultural Education~~
    - ~~b. Art~~
    - ~~c. Business Education~~
    - ~~d. Family and Consumer Sciences~~~~

- ~~e. Foreign Language~~
  - ~~f. Health and Physical Education~~
  - ~~g. Industrial Technology~~
  - ~~h. Language Arts~~
  - ~~i. Mathematics~~
  - ~~j. Natural Sciences~~
  - ~~k. Social Science~~
- ~~4. utilize teaching skills and strategies appropriate for young adolescents in each of the prospective teacher's content areas of specialization, including being able to:
    - ~~a. create and evaluate learning environments and activities which are developmentally appropriate and culturally responsive;~~
    - ~~b. utilize multiple assessment strategies for the purposes of planning instruction and facilitating student learning, including being able to utilize prescriptive skills in planning and modifying individual and group instruction;~~
    - ~~c. develop rigorous and developmentally appropriate curriculum for young adolescents;~~
    - ~~d. teach the basic concepts and skills of inquiry;~~
    - ~~e. plan, implement, and assess integrated curriculum;~~
    - ~~f. teach reading and writing relevant to the prospective teacher's content areas of specialization;~~
    - ~~g. structure instruction so that all students are both challenged and successful, including being able to:
      - ~~(1) demonstrate skills in differentiating curriculum and instruction, and~~
      - ~~(2) modify the environment to meet the special needs of young adolescents with a range of abilities and disabilities;~~~~
    - ~~h. utilize strategies which facilitate students attaining mastery of content;~~
    - ~~i. incorporate learners' ideas, interests, and questions into the exploration of curriculum and pursuit of knowledge; and~~
    - ~~j. utilize multiple grouping strategies that emphasize interdependence, cooperation, and individual responsibilities.~~~~
  - ~~5. demonstrate positive relationships with young adolescents, including being able to:
    - ~~a. facilitate students in their own problem solving;~~
    - ~~b. recognize and respond appropriately to the diversity among young adolescents; and~~
    - ~~c. manage student behavior while concurrently promoting self-discipline and positive self-image.~~~~
  - ~~6. demonstrate cooperative and collaborative skills in working with others, including being able to:
    - ~~a. collaborate and team teach with one or more teachers; and~~
    - ~~b. collaborate with families, resource persons, and community groups to achieve common goals for young adolescents.~~~~
  - ~~7. demonstrate an understanding of and ability to apply current research and best practices, and~~

~~8. demonstrate understanding of the philosophy and history of middle level education.~~

~~D. Demonstrate competence in two (2) or more Content Areas of Specialization with a minimum of 18 semester hours in each for a total of 36 semester hours. An endorsement in any of the Special Education endorsements, which includes any portion of grades 4 through 9, may be accepted in lieu of one Content Area of Specialization. The Content Areas of Specialization should be selected from the following list of content areas and candidates must be able to demonstrate the competencies in the selected areas:~~

- ~~1. **Agricultural Education.** The program should prepare prospective teachers to:
  - a. utilize advanced technology to gather information and data, calculate, and write reports;
  - b. access information and resources from multiple sources;
  - c. create curriculum which meets diverse student needs;
  - d. manage laboratories and field experiences;
  - e. provide information regarding career opportunities in agriculture;
  - f. research, evaluate, and apply new technologies in the agricultural industry;
  - g. provide leadership to and serve as advisor for FFA and Young Farmers;
  - h. analyze the impact of the agriculture industry on the economy of a community, state, nation, and at an international level;
  - i. analyze the critical elements of human relations and communications related to sales and service, including solving customer problems, customer follow-up, and using ethical business procedures;
  - j. describe the various crops, including those grown in Nebraska, and the characteristics of each;
  - k. evaluate cropping decisions, analyze cultural conditions, and solve problems affecting plant growth based on environmental as well as economic considerations;
  - l. describe the production, marketing, and economic impact of the horticulture industry;
  - m. analyze the interrelationships between the agricultural industry and natural resources;
  - n. describe major features and resources of the ecosystem and their importance to the agriculture industry;
  - o. analyze global issues related to the finiteness of resources, consumption patterns, and need for clean air, clean water, and solid waste management;
  - p. describe various species of livestock, including those raised in Nebraska, and the characteristics of each;
  - q. evaluate livestock management decisions, including profitability and environmental effects including: (1) the fundamentals and interrelationships between nutrition, animal health, reproduction, and genetics on livestock;~~

- ~~companion, and non-traditional animals; and (2) the effects of nutrition, animal health, reproduction, and genetics on marketing;~~
- ~~r. solve problems in agricultural mechanics, including being able to utilize an operator's manual;~~
- ~~s. demonstrate competence in the basic use of mechanical tools, equipment, facilities, and accessories;~~
- ~~t. describe the interrelationship between the food industry and social and cultural practices, including market demand; and~~
- ~~u. analyze leadership skills and performance situations.~~
- ~~2. Art.~~ The program should prepare prospective teachers to:
- ~~a. describe the foundations and philosophies of art education;~~
- ~~b. plan, organize, deliver, and assess a comprehensive art education program to meet the needs of all students;~~
- ~~c. demonstrate knowledge and understanding of art appreciation in a variety of contemporary and past cultures;~~
- ~~d. describe, analyze, interpret, and evaluate works of art;~~
- ~~e. demonstrate knowledge and understanding of aesthetics, the philosophical aspects of art, and the contributions of art to the individual, to community, and to society at large;~~
- ~~f. demonstrate an understanding of and be able to apply a variety of ideas, media, techniques, evolving technologies, and processes in both two and three dimensional art;~~
- ~~g. demonstrate an understanding of safety standards; and~~
- ~~h. establish safe instructional practices in the classroom.~~
- ~~3. Business Education.~~ The program should prepare prospective teachers to:
- ~~a. demonstrate knowledge and understanding of the concepts, principles and processes of:~~
- ~~(1) accounting,~~
- ~~(2) economics or personal finance,~~
- ~~(3) management,~~
- ~~(4) oral, written, and technological communication, and~~
- ~~(5) information technologies and systems;~~
- ~~b. demonstrate knowledge and understanding of the principles and functions of the United States economic system;~~
- ~~c. demonstrate knowledge and understanding of the relationship of the United States economy to the global economy;~~
- ~~d. create learning experiences that facilitate students' acquisition of the role of the consumer in the United States economy;~~
- ~~e. create learning experiences that facilitate students' abilities to make consumer decisions and solve consumer problems;~~
- ~~f. create learning experiences that facilitate students' acquisition of the principles of entrepreneurship, and the process of starting and maintaining a business;~~

- ~~g. create learning experiences that facilitate students' abilities to utilize advanced technologies;~~
- ~~h. provide information regarding career opportunities in the field of business;~~
- ~~i. utilize advanced technology to gather information, manage data, and communicate with a variety of audiences; and~~
- ~~j. utilize vocational student organizations, e.g., Future Business Leaders of America, to develop leadership abilities.~~

~~4. **Family and Consumer Sciences.** The program should prepare prospective teachers to:~~

- ~~a. demonstrate knowledge and an understanding of the relationship between family strengths and impact on individuals;~~
- ~~b. analyze the nature, functions, and significance of human relationships in the family and society;~~
- ~~c. develop, select, and use personal, social and material resources to meet human needs;~~
- ~~d. analyze physical, psychosocial, economic, cultural, and aesthetic well-being of individuals;~~
- ~~e. demonstrate an understanding of the role of individuals and families as consumers of goods and services;~~
- ~~f. use current and emerging technologies;~~
- ~~g. incorporate into instruction career exploration that examines the reciprocal nature of career choices and family life; and~~
- ~~h. provide information regarding career opportunities in the field of family and consumer science.~~

~~5. **Foreign Language.** The program should prepare prospective teachers to:~~

- ~~a. demonstrate intermediate-high level of proficiency in the target language by being able to:
  - ~~(1) handle successfully most uncomplicated communicative tasks and social situations. The applicant can initiate, sustain, and close a general conversation with a number of strategies appropriate to a range of circumstances and topics, but errors are evident. The limited vocabulary still necessitates hesitation and may bring about slightly unexpected circumlocution. There is emerging evidence of connected discourse, particularly for simple narration and/or description. The speaker can generally be understood even by interlocutors not accustomed to dealing with speakers at this level, but repetition may still be required;~~
  - ~~(2) sustain understanding over stretches of connected discourse on a number of topics pertaining to different times and places; however, understanding is inconsistent due to failure to grasp main ideas and/or details;~~
  - ~~(3) read consistently with full understanding simple connected texts dealing with basic personal and social needs about which the reader~~~~

- ~~has personal interest and/or knowledge. Can get some main ideas and information from texts at the next higher level featuring description and narration. Structural complexity may interfere with comprehension; for example, basic grammatical relations may be misinterpreted and temporal references may rely primarily on lexical items. The applicant has some difficulty with the cohesive factors in discourse, such as matching pronouns with referents. The applicant may have to read material several times for understanding; and~~
- ~~(4) meet most practical writing needs and limited social demands. The applicant can take notes in some detail on familiar topics and respond in writing to personal questions. He/she can write simple letters, brief synopses and paraphrases, summaries of biographical data, work and school experience. In those languages relying primarily on content words and time expression to express time, tense, or aspect, the applicant displays some precision; where tense and/or aspect is expressed through verbal inflections, forms are produced rather consistently, but not always accurately. He/she has an emerging ability to describe and narrate in paragraphs. He/she rarely uses basic cohesive elements, such as pronominal substitutions or synonyms in written discourse. The writing, though faulty, is generally comprehensible to natives used to the writing of nonnatives.~~
- ~~b. The program should prepare applicants to demonstrate the relationships between culture and language, including the ability to:~~
- ~~(1) demonstrate an understanding of the relationship between the perspectives and practices of the target culture and use this knowledge to interact effectively in cultural contexts;~~
  - ~~(2) demonstrate an understanding of the relationship between the perspectives and products/contributions of the target culture; and~~
  - ~~(3) utilize authentic materials for foreign language instruction, including instruction regarding the target culture.~~
- ~~c. The program should prepare applicants to engage in appropriate pedagogical practices, including the ability to:~~
- ~~(1) demonstrate an understanding of the relationships among central concepts of learning and teaching foreign languages, including the ability to communicate high expectations and create meaningful learning experiences for all students, including:~~
    - ~~(a) use effective communication techniques to foster active inquiry, collaboration, and supportive interaction in the foreign language classroom;~~
  - ~~(2) demonstrate an understanding of how students differ in their approaches to foreign language learning and are able to adapt instructional strategies to encourage all students' cognitive development;~~

- ~~(3) analyze the impact of diverse learning styles and thinking processes in order to produce meaningful language experiences for all students;~~
- ~~(4) create learning environments that encourage positive social interaction, motivation, and active engagement in learning foreign languages;~~
- ~~(5) plan, implement, and assess foreign language curriculum goals and content which reflect school district guidelines, student needs, and the communities they represent;~~
- ~~(6) be reflective foreign language teachers who continually evaluate the impact of instructional decisions on others (students, parents, and professionals in the learning community);~~
- ~~(7) integrate foreign language and other content areas; and~~
- ~~(8) describe how different languages use different patterns to communicate and apply this knowledge to their own language.~~
- ~~d. The program should prepare applicants to work with families, other professionals, and diverse communities, including the ability to:~~
  - ~~(1) foster relationships and collaborative skills with families, colleagues, and community agencies to support foreign language acquisition;~~
  - ~~(2) seek appropriate multicultural connections and integrate those perspectives into the foreign language curriculum to prepare students for participation in a diverse world; and~~
  - ~~(3) become actively involved in leadership opportunities that promote professional growth in the foreign language area;~~
- ~~e. The program should prepare applicants to demonstrate how facility in foreign language promotes career opportunities and interpersonal skills; and~~
- ~~f. The program should prepare applicants to demonstrate knowledge of a variety of books written for early adolescents in the target language.~~
- 6. Health and Physical Education.** ~~The program should prepare prospective teachers to:~~
  - ~~a. select, plan, teach and evaluate developmentally appropriate health and physical education curriculum;~~
  - ~~b. apply knowledge of anatomy, physiology, and related sciences to personal and community health care, and physical education activities;~~
  - ~~c. describe the aims and objectives of a comprehensive school health education program, and specifically the components of health instruction and physical education;~~
  - ~~d. demonstrate an understanding of the sociological aspect related to health and physical activity, including:~~
    - ~~(1) the interrelatedness of culture, language, ethnicity, and/or gender on health care issues and the selection of and involvement in physical activities;~~
    - ~~(2) the variations in social dynamics among individuals in small group and large group activities; and~~

- ~~(3) the role of physical activities in social, ethical and moral development;~~
- ~~e. analyze the interrelationships of personal and community behaviors and health;~~
  - ~~f. demonstrate an understanding of methods to reduce the occurrence of the health risk behaviors which most negatively affect children and adolescents (e.g., physical inactivity, intentional and unintentional injuries, dietary habits, tobacco use, alcohol and other drug use, and sexual activity which results in sexually transmitted diseases, including HIV/AIDS, and unintended pregnancy);~~
  - ~~g. analyze situations to prevent injuries and the spread of contagious diseases;~~
  - ~~h. describe the effects of prescription and non-prescription drugs on general well-being and the community;~~
  - ~~i. describe the factors involved in emotional and mental health, ways for promoting acceptable emotional reactions, ways for promoting mental health (including exercise), and community responses and responsibilities;~~
  - ~~j. demonstrate an understanding of and skills in basic locomotor, non-locomotor, and manipulative movement skills and patterns, e.g., walking, throwing, twisting;~~
  - ~~k. demonstrate an understanding of and skills in traditional individual, dual, and team sports and games;~~
  - ~~l. demonstrate an understanding of and skills in contemporary, noncompetitive activities suitable for participation throughout life, e.g., hiking, skating, cycling;~~
  - ~~m. demonstrate an understanding of and skills in basic rhythmic activities as well as various dance forms;~~
  - ~~n. demonstrate an understanding of and skills in exercise and fitness as an activity or series of activities, and the physiological effects of exercise;~~
  - ~~o. demonstrate an understanding of human movement from a motor development and motor learning perspective;~~
  - ~~p. demonstrate an understanding of typical and atypical social, cognitive, and psychomotor development of children and adolescents;~~
  - ~~q. demonstrate an understanding of the philosophical and historical development of health and physical education;~~
  - ~~r. create and utilize formative and summative fitness, motor skills, and cognitive assessment skills;~~
  - ~~s. design adapted physical education learning experiences for students with special needs; and~~
  - ~~t. participate in reflective practices and collaboration with colleagues in order to foster professional growth and to advocate for the health and physical education program.~~
- 7. Industrial Technology.** The program should prepare prospective teachers to:
- ~~a. demonstrate industrial technology education laboratory management techniques that incorporate current federal, state, and local environmental, safety and health guidelines;~~

- ~~b. plan, organize, deliver and assess a comprehensive industrial technology education program to meet the needs of all students;~~
- ~~c. establish and employ safety standards and procedures in the instructional environment of the industrial technology laboratory and classroom;~~
- ~~d. research, evaluate and apply current and emerging technologies in industrial technology;~~
- ~~e. utilize advanced technology to gather information, data to formulate and write— curriculum specific reports;~~
- ~~f. create curriculum which meets diverse student population needs;~~
- ~~g. demonstrate psychomotor skills and competence in the safe and proper use of tools and equipment currently used in the construction, manufacturing, communications and transportation industries;~~
- ~~h. access information and resources from multiple sources;~~
- ~~i. analyze the nature, function and significance of industrial systems to society;~~
- ~~j. describe the foundations and philosophies of industrial education and their relationships to career and technical education;~~
- ~~k. incorporate career exploration and exposure to career opportunities in industrial technology;~~
- ~~l. integrate Nebraska Content Standards for reading and writing, mathematics, science, and social sciences into the industrial technology education curriculum;~~
- ~~m. demonstrate an understanding and ability to use current technologies associated with industrial technology; and~~
- ~~n. demonstrate an understanding of the characteristics and fabrication processes of materials utilized by the construction, manufacturing, communications and transportation industries.~~

**8. Language Arts.** The program should prepare prospective teachers to:

- ~~a. demonstrate knowledge and an understanding of the English language, including being able to:
  - ~~(1) demonstrate an understanding of language acquisition and development;~~
  - ~~(2) demonstrate how reading, writing, listening, viewing, and thinking are interrelated;~~
  - ~~(3) recognize the impact of cultural, economic, political, and social environments upon language;~~
  - ~~(4) demonstrate an understanding of diversity in language use, patterns, and dialects across cultures, ethnic groups, geographic regions, and social roles;~~
  - ~~(5) demonstrate an understanding of how and why the English language evolves;~~
  - ~~(6) demonstrate an understanding of English grammars;~~
  - ~~(7) demonstrate an understanding of syntax and phonology; and~~
  - ~~(8) demonstrate an understanding of the various purposes for which language— is used.~~~~

- ~~b. demonstrate knowledge and an understanding of reading processes, including being able to:
    - (1) describe reading and writing development;
    - (2) teach basic skills and strategies in reading and writing;
    - (3) teach students to use reading and writing as tools for learning;
    - (4) motivate readers and writers using a wide variety of methods and materials;
    - (5) match reading materials with students abilities;
    - (6) involve parents in cooperative efforts and programs;
    - (7) use a wide range of strategies to comprehend, interpret, evaluate, and appreciate literary and other texts; and
    - (8) demonstrate an understanding of the uses of reading for different purposes.~~
  - ~~c. demonstrate knowledge and an understanding of different composing processes, including being able to:
    - (1) use a wide range of writing strategies to generate meaning and to clarify understanding;
    - (2) produce different forms of written discourse for various audiences demonstrating conventional usages for those forms and audiences;
    - (3) demonstrate how written discourse can influence thought and action; and
    - (4) revise, edit, and proof read written text.~~
  - ~~d. demonstrate knowledge and an understanding of an extensive range of literature, including being able to:
    - (1) demonstrate knowledge of a broad historical and contemporary spectrum of United States and world literatures, including
      - (a) literature from a range of cultures;
      - (b) literature from a range of genres;
      - (c) literature by authors of both genders;
      - (d) literature by authors of color; and
    - (2) demonstrate an extensive knowledge of award winning books especially written for early adolescents, including themes, character, settings, and level of reading difficulty.~~
  - ~~e. demonstrate knowledge and an understanding of the range and influence of print and nonprint media and technology in contemporary culture, including being able to demonstrate an understanding of and the ability to use current technologies in communication;~~
  - ~~f. demonstrate methods for conducting inquiry research; and~~
  - ~~g. demonstrate an understanding of and be able to apply the principles of contemporary rhetoric, interpersonal communication, and public address.~~
- 9. Mathematics.** The program should prepare prospective teachers to:
- ~~a. demonstrate an understanding of and model, in a variety of ways, basic concepts of number and operations, including being able to:~~

- ~~(1) demonstrate an understanding of the conceptual basis for the real number system, including properties that unite and separate various number systems;~~
- ~~(2) describe the additive and multiplicative nature of numbers, and facilitate students in transitioning from additive to multiplicative models;~~
- ~~(3) recognize the pervasiveness of proportionality across mathematical strands, and apply the concept as a model in describing a variety of situations, including those calling for ratios and percent;~~
- ~~(4) demonstrate an understanding of the various ways of making estimates, and appropriate and inappropriate uses of estimates; and~~
- ~~(5) utilize technology, hands-on activities, and manipulatives to support and facilitate appropriate development of numerical skills, and solve a variety of problems using mental processes, pencil and paper, and calculators.~~
- ~~b. recognize algebra as a language for modeling problem situations and representing numerical patterns and quantitative relationships in symbolic and graphical forms, including being able to:~~
  - ~~(1) describe the importance of early work with basic patterns and the later conceptual development of important ideas related to functions;~~
  - ~~(2) demonstrate an understanding of the algebraic techniques and procedures for transforming and simplifying algebraic representations, as well as how to reason about relations and how to draw inferences in solving problems;~~
  - ~~(3) demonstrate an understanding of the different kinds of functional relations – including polynomial, exponential, rational and trigonometric functions – and create examples of each.~~
- ~~c. demonstrate an understanding that geometry provides a repertoire of techniques for describing, representing, and reasoning about the shape, size, measure, and position of objects and visual patterns, including being able to:~~
  - ~~(1) describe the characteristics of different shapes and how shapes can be related;~~
  - ~~(2) use geometric concepts to record and analyze properties of shapes and patterns and to study the ways those objects and patterns change when acted upon by transformations;~~
  - ~~(3) use geometric relations in Euclidean and other geometric spaces to solve problems in fields from architecture and engineering to space science and the design of communication networks;~~
  - ~~(4) demonstrate an understanding of the structure and use of systems of measurement, including being able to solve a variety of problems involving geometry and measurement; and~~
  - ~~(5) use algebraic methods to help in reasoning about geometric situations, including use of visual models and methods to provide insight in thinking about patterns in quantitative and symbolic data.~~

- ~~d. demonstrate an understanding of and be able to apply the conceptual and procedural tools for collecting, organizing, and reasoning about data, including being able to:
    - ~~(1) utilize a variety of formats for collecting and reporting data;~~
    - ~~(2) demonstrate an understanding of the basic principles of inference;~~
    - ~~(3) apply numerical and graphical techniques for representing and summarizing collections of data, to interpret and draw inferences from the data, and make decisions in a wide range of applied problem situations; and~~
    - ~~(4) use statistical methods to make generalizations about samples based on the methods and language of probability.~~~~
  - ~~e. demonstrate an understanding of and be able to apply the concepts of discrete mathematics, including being able to:
    - ~~(1) apply algorithmic thinking to solve problems involving discrete data;~~
    - ~~(2) represent problems using matrices, finite graphs, and tree diagrams;~~
    - ~~(3) use counting techniques to enumerate possibilities involving order and combinations; and~~
    - ~~(4) describe basic algorithms for doing everyday tasks and use technology to solve a variety of discrete mathematics problems in practical settings.~~~~
  - ~~f. demonstrate an understanding of and be able to apply mathematical thinking processes, including being able to:
    - ~~(1) use strategies and concepts for discovering and describing patterns in visual, numerical, and symbolic data (i.e., processes such as classification, representation, and inductive reasoning and concepts such as symmetry, similarity, randomness, stability, recursion, and continuity);~~
    - ~~(2) use methods of formal verification for mathematical conjectures, including rules of logical inference and proof strategies;~~
    - ~~(3) model mathematical relations in problem situations by using symbolic expressions—representing important relationships, operating on symbolic expressions to gain understanding of the situation or to draw inferences about it, and apply results of mathematical analysis to solve problems and make decisions;~~
    - ~~(4) use heuristics of solving mathematical problems (e.g., testing extreme cases, using guess-and-check methods, conducting an organized search of specific examples, or using visual problem representations);~~
    - ~~(5) use calculating and computing technologies to search for patterns in numeric, graphic, and symbolic data; and~~
    - ~~(6) use strategies for communication of mathematical information in verbal, numerical, graphical, and symbolic forms and through physical models of mathematical principles.~~~~
- 10. Natural Sciences.** The program should prepare prospective teachers to:
- ~~a. demonstrate knowledge and an understanding of the unifying concepts and processes of science, including being able to:~~

- ~~(1) analyze systems, order, and organization;~~
- ~~(2) interpret and explain evidence and models;~~
- ~~(3) evaluate change, constancy, and measurement, including being able to:~~
  - ~~(a) select and use appropriate measurement units (both English and metric);~~
  - ~~(b) quantify changes in systems; and~~
  - ~~(c) investigate and describe changes in terms of scale, rate, and pattern;~~
- ~~(4) analyze the relationship between form and function; and~~
- ~~(5) change over a period of time.~~
- ~~b. demonstrate knowledge and an understanding of science as inquiry, including being able to:~~
  - ~~(1) design and conduct scientific investigations;~~
  - ~~(2) evaluate methodological procedures; and~~
  - ~~(3) interpret and communicate investigation results in a scientific manner.~~
- ~~c. demonstrate knowledge and an understanding of physical science, including:~~
  - ~~(1) properties of matter;~~
  - ~~(2) physical and chemical changes in the properties of matter;~~
  - ~~(3) motion and force; and~~
  - ~~(4) transfer of energy, including heat, light, chemical, sound, and electrical.~~
- ~~d. demonstrate knowledge and an understanding of life science, including:~~
  - ~~(1) structure and function in living systems;~~
  - ~~(2) reproduction and heredity, including sexual and asexual reproduction, and the effect of genes on heredity and organism characteristics;~~
  - ~~(3) regulation and behavior, including:~~
    - ~~(a) how organisms obtain and use resources, grow, reproduce, and maintain stable internal conditions while living in a constantly changing external environment;~~
    - ~~(b) how behavior is a response to internal and external stimuli; and~~
    - ~~(c) how an organism's behavior evolves through environmental adaptation.~~
  - ~~(4) populations and ecosystems; and~~
  - ~~(5) diversity and adaptations of organisms.~~
- ~~e. demonstrate knowledge and an understanding of earth and space science, including:~~
  - ~~(1) structure of the earth, and forces creating change in the earth's surface and atmosphere;~~
  - ~~(2) earth's history; and~~
  - ~~(3) the earth in the solar system, including:~~
    - ~~(a) the relationships between the solar system, galaxies, and universe;~~
    - ~~(b) the relationships between the motion of the earth and each of the following: day, year, seasons, eclipses, and phases of the moon;~~

- ~~(c) gravity's relationship to the solar system; and~~
    - ~~(d) the relationship of the sun's energy and the atmosphere, and the sun's energy and the earth's surface.~~
  - ~~f. demonstrate knowledge and an understanding of the relationships between science and technology, including:~~
    - ~~(1) technological design;~~
    - ~~(2) the difference of scientific inquiry from technological design;~~
    - ~~(3) the reciprocal nature of science and technology; and~~
    - ~~(4) the limits, and the intended and unintended consequences of technology.~~
  - ~~g. demonstrate knowledge and an understanding of science in personal and social perspectives, including:~~
    - ~~(1) the relationships of personal health with natural phenomenon and personal decisions regarding exercise, nutrition, and use of drugs;~~
    - ~~(2) the relationships between populations, resources, and environments;~~
    - ~~(3) the effects of natural hazards on the environment, e.g., earthquakes, and investigations which reveal how human activities can mitigate or accelerate the effects;~~
    - ~~(4) how perceptions of risks and benefits influence personal and social decisions; and~~
    - ~~(5) the components affecting science and technology in society, including:~~
      - ~~(a) ethical codes followed by scientists;~~
      - ~~(b) societal influence on research; and~~
      - ~~(c) limits of scientific research.~~
  - ~~h. demonstrate knowledge and an understanding of the history and nature of science, including:~~
    - ~~(1) the scientific process;~~
    - ~~(2) the history and contributions of several early and modern scientists, engineers, and/or professionals in related fields, including:~~
      - ~~(a) those from various social and ethnic backgrounds; and~~
      - ~~(b) at least one innovator who had to overcome flawed, commonly held beliefs of his/her time to reach conclusions that are now taken for granted.~~
- 11. Social Sciences.** The program should prepare prospective teachers to demonstrate knowledge and an understanding of and be able to teach:
- ~~a. western and eastern civilizations from 1000 A.D. to the present;~~
  - ~~b. physical and cultural geographic concepts, skills, and processes;~~
  - ~~c. United States history from the colonial period to the present;~~
  - ~~d. United States and Nebraska governments; and~~
  - ~~e. United States and Nebraska economies.~~