

006.02 Agricultural Education

006.02A Grade Levels: 6 – 12

006.02B Endorsement Type: Field

006.02C Persons with this endorsement may teach and manage an Agricultural Education program and will be eligible for the Work-Based Learning endorsement.

006.02D Certification Endorsement Requirements: This endorsement requires a minimum of 48 semester hours of agriculture subject matter plus work experience including:

006.02D1 A minimum of 12 semester hours in agricultural education which includes pedagogical content knowledge and principles of career and technical education and including a minimum of three (3) semester hours of coordination and supervision of work-based learning; and

006.02D2 A minimum of 36 semester hours from the areas of Agribusiness Systems, Animal Systems, Food Products and Processing Systems, Natural Resources and Environmental Service Systems, Plant Systems, and Power, Structural, and Technical Systems, including leadership, research, applied technology, and policy within the aforementioned systems:

006.02D2a Three (3) semester hours – Agribusiness Systems

006.02D2b Three (3) semester hours – Animal Systems

006.02D2c Three (3) semester hours – Food Products and Processing Systems

006.02D2d Three (3) semester hours – Natural Resources and Environmental Service Systems

006.02D2e Three (3) semester hours – Plant Systems

006.02D2f Nine (9) semester hours – Power, Structural, and Technical Systems, and

006.02E Work Experience: The endorsement is available only to those persons who have either (A) 1,000 verified hours of paid work-based experience relevant to the career field, or (B) at least 300 hours of supervised work experience relevant to the career field, under the direction of the college or university recommending the endorsement.

006.02F 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.

006.02G Effective September 1, 2015, 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 candidates for this endorsement with opportunities to demonstrate the dispositions and competencies required by the following guidelines:

**Pedagogical Content Knowledge**

**Standard 1.** A minimum of 12 semester hours of the program must prepare agricultural education candidates to:

- Element 1. Manage a comprehensive agricultural education program;
- Element 2. Utilize advanced instructional technology;
- Element 3. Access information and resources;
- Element 4. Analyze community needs and expectations;
- Element 5. Communicate effectively in both verbal and written form;
- Element 6. Design curriculum which meets diverse student needs;
- Element 7. Facilitate student learning through the use of instruction techniques and assessment using research-based best practices;
- Element 8. Safely manage Agriculture, Food and Natural Resources-based laboratories and field experiences;
- Element 9. Meet all requirements for and hold the Occupational Safety and Health Administration (OSHA) 10 card.
- Element 10. Manage supervised agricultural experience (work-based learning) programs for all students;
- Element 11. Provide information regarding agricultural awareness and career opportunities;
- Element 12. Integrate Nebraska academic core content standards, Nebraska Agriculture, Food and Natural Resources content standards, and Nebraska Career Readiness Standards into curriculum and instruction;

- Element 13. Provide intra-curricular delivery of FFA and serve as advisor for FFA, and
- Element 14. Integrate quality program standards for Agriculture, Food and Natural Resource Education into a local agricultural education program.

**Standard 2.** Integrate the Nebraska Career Readiness Standards in all Agriculture, Food and Natural Resource Education courses to include:

- Element 1. Apply appropriate academic and technical skills;
- Element 2. Communicate effectively and appropriately;
- Element 3. Contribute to employer and community success;
- Element 4. Make sense of problems and persevere in solving them;
- Element 5. Use critical thinking skills;
- Element 6. Demonstrate innovation and creativity;
- Element 7. Model ethical leadership and effective management;
- Element 8. Work productively in teams and demonstrate cultural competency;
- Element 9. Utilize technology;
- Element 10. Manage personal career development; and
- Element 11. Attend to personal and financial well-being.

### **Content Knowledge**

**Standard 3.** A minimum of 36 semester hours must prepare agricultural education candidates to provide a comprehensive and integrated curriculum from the areas of agribusiness systems, animal systems, food products and processing systems, natural resources and environmental service systems, plant systems, power, structural and technical systems, and leadership, research and applied technology; and policy within the aforementioned systems, and prepare candidates to:

- Element 1. Demonstrate competence in the application of principles and techniques for the development and management of agribusiness systems;
- Element 2. Demonstrate competence in the application of scientific principles and practices to the production and management of animal systems;
- Element 3. Demonstrate competence in the application of scientific principles, practices and techniques in processing, storage and development of food products and processing systems;
- Element 4. Demonstrate competence in the application of scientific principles and techniques to the management of natural resources and environmental service systems;
- Element 5. Demonstrate competence in the application of scientific principles and techniques to the production, management and design of plant systems;

- Element 6. Demonstrate competence in the application of scientific principles and techniques for the development and management of power, structural and technical systems; and
- Element 7. Demonstrate competence integrating leadership, research and applied technology and policy within agriculture, food and natural resources systems.

### **Principles of Career and Technical Education**

**Standard 4.** Demonstrate knowledge of curriculum and program design. Deliver a standards-based curriculum in Agriculture, Food and Natural Resources through programs of study that incorporate classroom and laboratory instruction; experiential, project and work-based learning, and leadership and personal development through FFA.

- Element 1. Develop programs of study that reflect the needs of the community and have been developed in accordance with state requirements.
- Element 2. Designs courses in the program of study that are organized logically and sequentially from introductory to advanced levels.
- Element 3. Aligns technical content with core academic content standards.

**Standard 5.** Demonstrate knowledge of facilities and equipment planning. Design facilities and equipment plans that support the implementation of the program and curriculum by providing all students opportunities for the development and application of knowledge and skills.

- Element 1. Develop facility plans that provide for the effective delivery of all programs of study offered.
- Element 2. Demonstrate knowledge of existing local, state, and federal safety and health standards.
- Element 3. Develop training and evaluation so students using the facility engage in a safe working environment.
- Element 4. Demonstrate the ability to maintain a clean and organized environment conducive to learning.
- Element 5. Demonstrate knowledge of facility design that is accessible and accommodating to all students.
- Element 6. Demonstrate the ability to organize storage space for both student and teacher materials, supplies, and equipment.
- Element 7. Maintain an inventory of equipment, tools, consumable items, and instructional technology and is able to develop a plan for new purchases and replacements.
- Element 8. Maintain equipment, tools, and instructional technology adequately to current industry standards.

- Element 9. Plan for adequate quantities of tools, equipment, and consumable supplies for equipping all students at all times.
- Element 10. Maintain equipment, tools, and instructional technology that is current, available, and used effectively for delivering instruction.

**Standard 6.** Demonstrate knowledge of experiential, project and work-based learning. Enhance student learning through continuous experiential, project, and work-based learning experience.

- Element 1. Integrate work-based learning with the Agriculture, Food and Natural Resources program for all students.
- Element 2. Align work-based learning to Agriculture, Food and Natural Resources curriculum standards.
- Element 3. Assess work-based learning by measuring students' growth against a relevant set of career-based skills, knowledge, and competencies.
- Element 4. Promote student-planned, personalized work-based learning experiences.
- Element 5. Engage students to maintain accurate work-based learning documentation to meet state and local requirements.
- Element 6. Provide direct supervision and guidance for each student's work-based learning experience.
- Element 7. Document work-based learning experiences between the student and adult supervisors.

**Standard 7.** Demonstrate knowledge of leadership and personal development. Engage student participation in intra-curricular leadership and personal development experiences through FFA.

- Element 1. Provide the opportunity for all students to be a member of FFA.
- Element 2. Engage students to build a progressive leadership and personal development plan.
- Element 3. Engage students in meaningful leadership and personal development activities related to Agriculture, Food and Natural Resources.
- Element 4. Provide leadership to ensure the FFA constitution and bylaws are up-to-date and approved by chapter members.
- Element 5. Engage students in the planning and implementation of a program of activities.
- Element 6. Facilitate the conduct of regularly scheduled chapter meetings.
- Element 7. Implement an awards recognition program planned and conducted by student members.
- Element 8. Provide leadership to ensure the FFA chapter has a current budget, which provides the financial resources to support the program of work.

**Standard 8.** Demonstrate knowledge of school and community partnerships. Engage school and community partners in developing and supporting a quality program.

- Element 1. Demonstrate knowledge of how to regularly inform key stakeholders regarding the goals, objectives, and accomplishment of the Agriculture, Food and Natural Resources program.
- Element 2. Demonstrate knowledge of how to initiate engagement of key stakeholders with the Agriculture, Food and Natural Resources program.
- Element 3. Demonstrate knowledge of how to recognize key stakeholders for their support of the Agriculture, Food and Natural Resources program.
- Element 4. Participate in key stakeholder activities.

**Standard 9.** Demonstrate knowledge of program marketing. Engage key stakeholders through involvement, recognition, and the sharing of information about all components of the program.

- Element 1. Design and implement strategic marketing efforts with pieces implemented by the appropriate key stakeholders.
- Element 2. Design and implement a recruitment and retention plan that yields steady or increasing student enrollment.
- Element 3. Utilize relevant Agriculture, Food and Natural Resources data for marketing and communication purposes.

**Standard 10.** Demonstrate knowledge of program planning and evaluation. Design and implement a system of needs assessment and evaluation for continual program development and improvement.

- Element 1. Collect and report relevant Agriculture, Food and Natural Resources data to key stakeholders and other entities as determined by local and state requirements.
- Element 2. Survey key stakeholders to determine their expectations and current assessment of program quality and the success of students.
- Element 3. Provide leadership for a representative Agriculture, Food and Natural Resources advisory committee, authorized by the local board of education, to meet regularly to advise program direction and development.
- Element 4. Provide leadership for creation and implementation of a programmatic strategic plan that is based on performance data, key stakeholder surveys, and advisory committee input.
- Element 5. Develop and implement an Agriculture, Food and Natural Resources budget that provides the financial resources to support the current and planned needs of the program.

**CLEAN PROPOSED ENDORSEMENT**  
Ad Hoc Committee – 9.30.16 (includes Ad Hoc edits)

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

Guidelines are based, in part, on National Quality Program Standards for Agriculture, Food and Natural Resources Education and informed by other Career and Technical professional standards (2016).

**Agricultural and Horticulture Education Ad Hoc Committee Members**  
Friday, September 30, 2016 – 9:30 A.M.  
Concordia Fallbrook, 570 Fallbrook Blvd., Lincoln, NE 68521

<b>Ad Hoc Committee Requirements</b>	<b>Possible Ad Hoc Committee Members</b>
<b>Ad Hoc Chair – Collaboratively determined by NDE Team Leader responsible for the endorsement area and the NDE designee with responsibilities for NCTE coordination.</b>	<b>Matt Kreifels, NDE</b> <a href="mailto:matt.kreifels@nebraska.gov">matt.kreifels@nebraska.gov</a> <b>Krystl Knabe, NDE</b> <a href="mailto:krystl.knabe@nebraska.gov">krystl.knabe@nebraska.gov</a>
<b>Current Teachers— Currently endorsed and employed practitioners in</b>	<b>David Gibbens, Atkinson West Holt</b> <a href="mailto:davgibbens@westholt.org">davgibbens@westholt.org</a>

approved or accredited public or private schools in the endorsement area at the grade levels under consideration.	<b>Kristine Spath, Waverly</b> <a href="mailto:kristine.spath@district145.org">kristine.spath@district145.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.	<b>Dr. Lloyd Bell, UNL</b> <a href="mailto:lbell1@unl.edu">lbell1@unl.edu</a> <b>Dr. Nathan Conner, UNL</b> <a href="mailto:nconner2@unl.edu">nconner2@unl.edu</a>
<b>Specialists in the Content Area—</b> Might include Arts and Sciences college faculty or persons drawn from professional practice in the endorsement area.	<b>Annie Erichsen, SCC</b> <a href="mailto:aerichsen@southeast.edu">aerichsen@southeast.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.	<del><b>Chad Denker, David City Public</b></del> <del><a href="mailto:denker@dcschools.org">denker@dcschools.org</a></del> <b>Brian Hoover, NE City Public</b> <a href="mailto:bhoover@nebcityps.org">bhoover@nebcityps.org</a>
<b>NCTE Representation—</b> Representation from the NCTE Standing Committee to which the endorsement has been assigned.	<b>Tom Wandzilak, UNL (also STS)</b> <b>NCTE Standing Committee B, Certification Official</b> <a href="mailto:twandzilak1@unl.edu">twandzilak1@unl.edu</a>
<b>NDE Representative with responsibilities related to the endorsement area.</b>	<b>Anita Wollenburg, NDE</b> <a href="mailto:anita.wollenburg@nebraska.gov">anita.wollenburg@nebraska.gov</a>
<b>Representatives of national/state specialty professional associations or professionals drawn from areas of employment related to the content area.</b>	<b>Cole Blomendahl, Mead High School</b> <a href="mailto:cblomendahl@esu2.org">cblomendahl@esu2.org</a> <b>Brett Nollette, Valentine High School</b> <a href="mailto:bnollette@vcsbadger.net">bnollette@vcsbadger.net</a>
<b>Additional P-12 school practitioners or higher education faculty to equalize the representation between these two groups.</b>	N/A
<b>A NDE designee, who will be a non-voting member and serve as a consultant for the <i>ad hoc</i> committee.</b>	<b>Pat Madsen, NDE</b> <a href="mailto:pat.madsen@nebraska.gov">pat.madsen@nebraska.gov</a>