

NEW MEXICO DEPARTMENT OF EDUCATION  
COMPETENCIES FOR ENTRY LEVEL  
AGRICULTURAL EDUCATION TEACHERS

1 **Agriculture, Food, and Natural Resources (AFNR) Competencies**

1.1 **The Domain of Food Products and Processing Systems:**

Preparation to teach agricultural education will result in individuals who can teach others competencies in food products and processing systems:

- 1.1.1 Apply principles of food processing to the food industry.
- 1.1.2 Apply principles of food science to the food industry.
- 1.1.3 Plan, implement, manage, and/or provide services for the preservation and packaging of food and food products.
- 1.1.4 Identify processing, handling, and storage factors to show how they impact product quality and safety.

1.2 **The Domain of Plant Systems:**

Preparation to teach agricultural education will result in individuals who can teach others competencies in plant systems:

- 1.2.1 Apply principles of anatomy and physiology to produce and manage plants in both a domesticated and natural environment.
- 1.2.2 Address taxonomic or other classifications to explain basic plant anatomy and physiology.
- 1.2.3 Apply fundamentals of production and harvesting to produce plants
- 1.2.4 Exercise elements of design to enhance an environment (e.g., floral, forest, landscape, farm).

1.3 **The Domain of Animal Systems:**

Preparation to teach agricultural education will result in individuals who can teach others competencies in animal systems:

- 1.3.1 Apply knowledge of anatomy and physiology to produce and/or manage animals in a domesticated or natural environment.
- 1.3.2 Recognize animal behaviors to facilitate working with animals safely.
- 1.3.3 Provide proper nutrition to maintain animal performance.
- 1.3.4 Know the factors that influence an animal's reproductive cycle to explain species response.
- 1.3.5 Identify environmental factors that affect an animal's performance.

1.4 **The Domain of Power, Structural, and Technical Systems:**

Preparation to teach agricultural education will result in individuals who can teach others competencies in power, structural, and technical systems:

- 1.4.1 Apply physical science principles to engineering applications with mechanical equipment structures, biological systems, land treatment, power utilization, and technology.
- 1.4.2 Apply principles of safe operation and maintenance to mechanical equipment, structures, biological systems, land treatment, power utilization, and technology.
- 1.4.3 Apply principles of safe service and repair to mechanical equipment, structures, biological systems, land treatment, power utilization, and technology.

- 1.4.4 Exercise basic skills in blueprint and design development to create sketches, drawings, and plans.
- 1.4.5 Read and relate structural plans to specifications and building codes.
- 1.4.6 Examine structural requirements to estimate project costs.
- 1.4.7 Develop skills required to safely use construction/ fabrication equipment and tools
- 1.4.8 Plan, implement, manage, and/ or provide support services to facility design and construction; equipment design, manufacture, repair, and service; and agricultural technology.
- 1.4.9 Use the variety of tools available in computer systems to accomplish fast, accurate production in the workplace.
- 1.4.10 Safely use available power sources to plan and apply control systems.
- 1.4.11 Explain geospatial technology to demonstrate its applications.

**1.5 The Domain of Natural Resources and Environmental Service Systems:**

Preparation to teach agricultural education will result in individuals who can teach others competencies in natural resources and environmental service systems:

- 1.5.1 Recognize importance of resources and human interrelations to conduct management activities in natural habitats.
- 1.5.2 Use effective venues to communicate natural phenomena to the public.
- 1.5.3 Apply scientific principles to natural resource management activities.
- 1.5.4 Employ knowledge of natural resources industries to describe production practice and processing procedures.
- 1.5.5 Practice responsible conduct to protect natural resources.
- 1.5.6 Identify public policies and regulations impacting environmental services to determine their effect on facility operation.
- 1.5.7 Apply scientific principles to environmental services.
- 1.5.8 Understand environmental service systems.

**1.6 The Domain of Agribusiness Systems:**

Preparation to teach agricultural education will result in individuals who can teach others competencies in agribusiness service systems:

- 1.6.1 Employ leadership skills to accomplish goals and objectives in an AFNR business environment.
- 1.6.2 Practice good record keeping to accomplish AFNR business objectives.
- 1.6.3 Apply generally accepted accounting principles and skills to manage budget, credit, and optimal application of AFNR business assets.
- 1.6.4 Employ AFNR industry concepts and practices to manage inventory.
- 1.6.5 Utilize technology to accomplish AFNR business objectives
- 1.6.6 Use sales and marketing principles to accomplish AFNR business objectives.

**2 Career Cluster Competencies:**

Preparation to teach agricultural education will result in individuals who can teach others competencies in agricultural, food, and natural resource careers:

- 2.1 Achieve specific academic knowledge and skills required to peruse the full range of careers and post-secondary education opportunities within AFNR.

- 2.2 Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information within AFNR
- 2.3 Employ technical communications effectively to maintain good records and reporting procedures.
- 2.4 Solve problems using critical thinking skills (e.g., analyze, synthesize, and evaluate) independently and in terms.
- 2.5 Access suitable resources to identify public policies, issues, and regulations impacting AFNR management.
- 2.6 Use information technology tools specific to AFNR to access, manage, integrate, and create information.
- 2.7 Understand roles within teams, work units, departments, organizations, interorganizational systems, and the larger environment.
- 2.8 Identify how key organizational systems affect organizational performance and the quality of products and services.
- 2.9 Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance.
- 2.1 Identify health goals and safety procedures for AFNR occupations.
- 2.11 Use leadership skills in collaborating with other to accomplish organizational goals and objectives.
- 2.12 Know and understand the importance of professional ethics and legal responsibilities.
- 2.13 Know and understand the importance of employability skills.
- 2.14 Use the technical knowledge and skills required to peruse the full range of careers for all AFNR pathways.

### 3 **Local Program Success Competencies:**

#### 3.1 **Instruction**

Preparation to teach agricultural education will result in individuals who can fulfill the instructional role in the agricultural educational program:

- 3.1.1 Develop an appropriate and accountable curriculum pattern and courses for the program.
- 3.1.2 Demonstrate teacher behaviors documented by research to be related to student achievement including: clarity; variability; enthusiasm; task-oriented/business like behavior; and student opportunity to learn criterion material.
- 3.1.3 Demonstrate master teacher competencies including with-it-ness, students centeredness, and an in-charge image.

#### 3.2 **Supervised Agricultural Experience Program (SAEP)**

Preparation to teach agricultural education will result in individuals who can fulfill the SAEP supervisory role in the agricultural education program:

- 3.2.1 Demonstrate knowledge of SAEPs.
- 3.2.2 Can plan, implement, and supervise appropriate SAEPs.
- 3.2.3 Demonstrate sound judgment when supervising SAEPs.

#### 3.3 **FFA**

Preparation to teach agricultural education will result in individuals who can fulfill the FFA advisory role in the agricultural education program:

3.3.1 Can plan, implement, and supervise the activities of an active FFA chapter

3.3.2 Undertake advisory responsibilities necessary for operating an active FFA chapter.

3.3.3 Demonstrate sound judgment in the role of a FFA advisor.

3.4 **Partnerships:**

Preparation to teach agricultural education will result in individuals who can fulfill a partnership-building role in the agricultural education program:

3.4.1 Utilize stakeholder groups within and outside of the school and community to improve the program (e.g., students, administrators, parents/guardians, colleagues, community members, advisory committee members, FFA alumni members, state agricultural education leaders, and others).

3.4.2 Utilize resources from within and outside of the school and community to improve the program.

3.4.3 Recognize stakeholders for their contributions and support.

3.5 **Program Marketing:**

Preparation to teach agricultural education will result in individuals who can fulfill a marketing role in the agricultural education program:

3.5.1 Demonstrate an ability to market their program to the school and community.

3.5.2 Demonstrate an understanding of how to recruit potential students into the program.

3.6 **Professional Growth:**

Preparation to teach agricultural education will result in individuals who can fulfill a professional role in the agricultural education program:

3.6.1 Join and participate in appropriate state and national agricultural education and career and technical education professional organizations.

3.6.2 Incorporate new ideas and technologies learned through in-services into their teaching and program.

3.7 **Program Planning:**

Preparation to teach agricultural education will result in individuals who can fulfill a program-planning role in the agricultural education program:

3.7.1 Utilize stakeholder groups like an advisory committee in program planning.

3.7.2 Inform school administrators about stakeholder group recommendations.

4 **Program Management Competencies:**

Preparation to teach agricultural education will result in individuals who can manage the agricultural education program:

4.1 Maintain facilities, equipment, and materials

4.2 Demonstrate knowledge of departmental budgeting.

4.3 Can complete required program records and reports

4.4 Can balance all aspects of a strong program.