

Agricultural Science Standards

Introduction to Plant and Animal Science (Updated 2023)

Career Ready Practices (CRP)

- **CRP.09.02** Implement personal management skills to function effectively and efficiently in the workplace (e.g., time management, planning, prioritizing, etc.).
- **CRP.12** Work productively in teams while using cultural/global competence.

Animal Systems (AS)

- **AS.02** Utilize best-practice protocols based upon animal behaviors for animal husbandry and welfare.
- **AS.03** Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction and/or economic production.
- **AS.06** Classify, evaluate and select animals based on anatomical and physiological characteristics.
- **AS.07** Apply principles of effective animal health care.

Plant Systems (PS)

- **PS.01.02** Prepare and manage growing media for use in plant systems.
- **PS.03** Propagate, culture and harvest plants and plant products based on current industry standards.

Power Systems and Technology (PST)

- **PST.02.02** Operate machinery and equipment while observing all safety precautions in AFNR settings.

Ag 2 (Updated 2023)

Career Ready Practices (CRP)

- **CRP.08** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CRP.12** Work productively in teams while using cultural/global competence.

Environment Service Systems (ESS)

- **ESS.05** Use tools, equipment, and machinery common to tasks in environmental service systems.

Plant Systems (PS)

- **PS.03** Propagate, culture and harvest plants and plant products based on current industry standards.

Power Systems and Technology (PST)

- **PST.01** Apply physical science principles and engineering applications to solve problems and improve performance in AFNR power, structural and technical systems.
- **PST.02** Operate and maintain AFNR mechanical equipment and power systems.
- **PST.02.02** Operate machinery and equipment while observing all safety precautions in AFNR settings.
- **PST.03** Service and repair AFNR mechanical equipment and power systems.
- **PST.04** Plan, build and maintain AFNR structures.

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Ag 3/4 (Updated 2023)

Career Ready Practices (CRP)

- **CRP.09** Model integrity, ethical leadership and effective management.
- **CRP.12** Work effectively in teams using cultural/global competence.
- **CRP.10** Plan education and career path aligned to personal goals.

Cluster Skills (CS)

- **CS.03** Examine and summarize the importance of health, safety and environmental management systems in AFNR workplaces.
- **CS.05** Describe career opportunities and means to achieve those opportunities in each of the AFNR career pathways.

Agricultural Business Systems (ABS)

- **ABS.01** Apply management planning principles in AFNR businesses.
- **ABS.02** Use recordkeeping to accomplish AFNR business objectives, manage budgets and comply with laws and regulations.

Plant Systems (PS)

- **PS.03** Propagate, culture and harvest plants and plant products based on current industry standards.

Agricultural Science Standards

Applied Vet Science (Updated 2023)

Career Ready Practices (CRP)

- **CRP.01** Act as a responsible and contributing citizen and employee.
- **CRP.08** Use critical thinking to make sense of problems and persevere in solving them.

Animal Systems (AS)

- **AS.02** Utilize best practice protocols based on animal behaviors for animal husbandry and welfare.
- **AS.04** Apply principles of animal reproduction to achieve desired outcomes for performance, development, and/or economic development.
- **AS.05** Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.
- **AS.06** Classify, evaluate and select animals based on anatomical and physiological characteristics.
- **AS.07** Apply principles of effective animal health care.

Biotechnology Systems (BS)

- **BS.02** Demonstrate proficiency by safely applying appropriate laboratory skills to complete tasks in a biotechnology research and development environment.

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Horse and Companion Animal (Updated 2023)

Career Ready Practices (CRP)

- **CRP.04.01** Speak using strategies that ensure clarity, logic, purpose and professionalism in formal and informal settings.
- **CRP.05** Consider the environmental, social, and economic impacts of decisions.
- **CRP.07** Employ valid and reliable research strategies.
- **CRP.10** Plan education and career path aligned to personal goals.

Animal Systems (AS)

- **AS.01** Evaluate the development and implications of animal origin, domestication and distribution on production practices and the environment.
- **AS.02** Utilize best-practice protocols based upon animal behaviors for animal husbandry and welfare.
- **AS.05** Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.
- **AS.06** Classify, evaluate and select animals based on anatomical and physiological characteristics
- **AS.07** Apply principles of effective animal health care.
- **AS.08** Analyze environmental factors associated with animal production on the environment.

Power Systems Technology (PST)

- **PST.02.02** Operate machinery and equipment while observing all safety precautions in AFNR settings.

Agricultural Science Standards

Meat Processing (Updated 2023)

Career Ready Practices (CRP)

- **CRP.01** Act as a responsible and contributing citizen and employee.
- **CRP.08** Use critical thinking to make sense of problems and persevere in solving them.

Animal Systems (AS)

- **AS.02** Utilize best practice protocols based on animal behaviors for animal husbandry and animal welfare.
- **AS.05.02** Comply with government regulations and safety standards for facilities used in animal production.

Food Products and Processing (FPP)

- **FPP.01** Develop and implement procedures to ensure safety, sanitation, and quality in food product and processing facilities.
- **FPP.02** Apply the principles of nutrition, biology, microbiology, chemistry, and human behavior to the development of food products.
- **FPP.03** Select and process food products for storage, distribution and consumption.
- **FPP.04** Explain the scope of the food industry and the historical and current developments of food product and food processing.

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SAE/Recordkeeping (Updated 2023)

Career Ready Practices (CRP)

- **CRP.04.02** Produce clear, reasoned and coherent written and visual communication in formal and informal settings.
- **CRP.01.01** Model personal responsibility in the workplace and community.
- **CRP.03.02** Design and implement a personal financial management plan.
- **CRP.08** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CRP.09** Model integrity, ethical leadership and effective management.
- **CRP.10** Plan education and career path aligned to personal goals.

Agricultural Science Standards

Veterinary Assistant Certification (Updated 2023)

Career Ready Practices (CRP)

- **CRP.01** Act as a responsible and contributing citizen and employee.
- **CRP.08** Use critical thinking to make sense of problems and persevere in solving them.

Animal Systems (AS)

- **AS.02** Utilize best practice protocols based on animal behaviors for animal husbandry and welfare.
- **AS.05** Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.
- **AS.06** Classify, evaluate and select animals based on anatomical and physiological characteristics.
- **AS.07** Apply principles of effective animal health care.

Biotechnology Systems (BS)

- **BS.02** Demonstrate proficiency by safely applying appropriate laboratory skills to complete tasks in a biotechnology research and development environment.