

# Program SLOs

## Agriculture and Related Technologies

(Agriculture, Agriculture Business, Animal Science)

A.S. – General Agriculture, Agriculture Business, Agriculture Business (AS-T), Equine Science

Certificate of Achievement– General Agriculture, Agricultural Business, Plant-Based Nutrition and Sustainable Agriculture

<b>Agriculture and Related Technologies Program Student Learning Outcomes From the 2015 PrOF (Program Review)</b>			
1	Program Student Learning Outcome (P-SLO)	<b>Technical Knowledge</b>	<ul style="list-style-type: none"> <li>Compete in the job market in the field of agriculture</li> </ul>
2	Program Student Learning Outcome (P-SLO)	<b>Transfer</b>	<ul style="list-style-type: none"> <li>Prepare students for transfer to higher learning institutions</li> </ul>
3	Program Student Learning Outcome (P-SLO)	<b>Life-long learning</b>	<ul style="list-style-type: none"> <li>Provide students the opportunity to participate in leadership opportunities to develop life-long learning traits</li> </ul>
4	Program Student Learning Outcome (P-SLO)	<b>Basic Skills</b>	<ul style="list-style-type: none"> <li>Basic Skill Improvement</li> </ul>
5	Program Student Learning Outcome (P-SLO)	<b>Communication</b>	<ul style="list-style-type: none"> <li>Demonstrate independent learning and effective communication skills</li> </ul>

<b>A.S. - Equine Science Student Learning Outcomes*</b>
<b>SLO 1</b> Describe the processes involved and outline major events in the evolution and domestication of the horse.
<b>SLO 2</b> Formulate a disease and parasite prevention program for equine.
<b>SLO 3</b> Describe career opportunities and requirements for successful employment in the equine industry.
<b>SLO 4</b> Relate basic genetic principles to techniques in breeding selection and mating programs.
<b>SLO 5</b> Identify anatomy and describe physiology of the male and female equine reproductive tract.
<b>SLO 6</b> List and explain the correct use of specialized insemination tools.
<b>SLO 7</b> Develop and maintain bookkeeping and record systems.
<b>SLO 8</b> Develop a ranch plan for an equine facility, incorporating legal requirements and regulations.
<b>SLO 9</b> Identify parts of the equine gastrointestinal system and describe the function of each.
<b>SLO 10</b> Implement a sound feeding program based on the type and amount of work performed.
<b>SLO 11</b> Assess the function and importance of each nutrient as it pertains to equine nutrition.
<b>SLO 12</b> Demonstrate basic handling of the horse including catching, haltering, leading and tying.

**Certificate - Plant-Based Nutrition and Sustainable Agriculture Student Learning Outcomes\***

**SLO 1** Demonstrate independent learning and effective communication skills.

- Demonstrate responsibility for personal action and choices.
- Communicate effectively both orally and in writing.

**SLO 2** Explain the principles of nutrition and its effect on health.

- Relate the dietary causes of chronic diseases.
- Evaluate the role of plant-based foods on health and the environment.

**SLO 3** Demonstrate a fundamental understanding of health behaviors on nutritional and health status.

- Schematize the effects of personal food choice on health, the environment and public policy.

**SLO 4** Basic and advanced plant science/horticulture skills development and improvement.

- Demonstrate and apply the theories of sustainable and organic agriculture.
- Demonstrate a fundamental understanding of soils, soil development, soil building and preparation and sustainable soil management.
- Demonstrate a fundamental understanding of hydraulics and irrigation design, installation, and water management principles and practices.
- Create agriculture design concepts based on sound, sustainable soil management, water conservation, construction and maintenance, and integrated pest management best practices.

**SLO 5** Effectively and accurately prepare and analyze raw ingredients and prepared foods.

- Evaluate food through sensory evaluation of texture, taste, color, presentation, smell and umami.
- Identify optimal cooking procedures/heat transfer to maximize nutrient content as well as the quality of the ingredients and dish as a whole.
- Analyze quality defects in cooked products and specify possible errors in techniques or ingredient selection.

**SLO 6** Implement proper sanitary and safety techniques.

- Demonstrate appropriate food handling and sanitary techniques.
- Utilize kitchen tools/equipment appropriately