

## **STUDENT LEARNING ASSESSMENT OVERVIEW**

### **ANIMAL SCIENCE**

The Animal Science program provides opportunity and instruction towards employment as well as continuing education opportunities at the university level. Mesalands Community College, through its Animal Science Program, starts students on the pathway towards a variety of careers which are available in the field of animal science. From feed or agricultural medical sales to livestock nutritionist, buyer, handler and manager, the field of animal science offers a variety of prospective career paths.

The Animal Science program at Mesalands Community College provides educational options in either equine science or beef science.

- 1) Equine Science (horse science) involves multiple careers in the equine industry. Whether your interest is to work in a large stable, on a breeding farm or to have your own horses, having a background in equine science provides the foundation of sound equine management practices.

The Equine Science option consists of three parts: Animal Science department core classes, Equine Science classes, and the general education required classes. The combination of these courses provides a comprehensive educational experience for many entry level positions in the equine industry.

- 2) Beef Science involves careers ranging from livestock exchange personnel to feed sales to farm/ranch managers. All segments of the beef industry from breeding and birth to slaughter and food sales create the need for knowledgeable people to be responsible for maintaining industry standards.

The Beef Science option in Animal Science includes three parts of the curriculum: the Animal Science department core classes, the Beef Science option classes and the general education course requirements. The Beef Science option classes emphasize nutrition and beef production.

### **Program Objectives**

Upon completion of the Animal Science Associate Degree Program:

1. The student will recognize, demonstrate, and explain the function and role of livestock within the agricultural and food industry.
2. The student will recognize and evaluate the use, structure, and function of livestock for various uses, as well as present their findings in a speech, such as a set of reasons.
3. The student will apply sound financial and management practices as well as principles utilized in the agricultural industry.

4. The Equine Science student will demonstrate a broad-based understanding of biological and management principles and develop the ability to incorporate the use of these principles into the horse industry along with aptitude to critically evaluate industry issues.
5. The Beef Science student will demonstrate a broad-based understanding of biological and management principles and develop the ability to incorporate the use of these principles into the beef cattle industry along with aptitude to critically evaluate industry issues.

### Program Objectives Assessment Plan

All program objectives are measured with multiple tools.

The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

Program Objective	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
1. The student will recognize, demonstrate, and explain the function and role of livestock within the agricultural and food industry.	<ul style="list-style-type: none"> <li>• Written Exams</li> <li>• Writing Assignment (2-5 pages)</li> <li>• Oral Presentation</li> <li>• Organized Class Notebook</li> <li>• CAT</li> <li>• Oral Vocabulary Quiz</li> <li>• Laboratory Experiments</li> </ul>	<ul style="list-style-type: none"> <li>• ANSC 100</li> <li>• RGSC 100</li> <li>• ANSC 150</li> <li>• ANSC 170</li> <li>• ANSC 245</li> <li>• ANSC 230</li> <li>• ANSC 151</li> <li>• ANSC 224</li> <li>• ANSC 275</li> <li>• ANSC 255</li> </ul>
2. The student will recognize and evaluate the use, structure, and function of livestock for various uses, as well as present their findings in a speech, such as a set of reasons.	<ul style="list-style-type: none"> <li>• Written Exams</li> <li>• Writing Assignment (2-5 pages)</li> <li>• Oral Presentation</li> <li>• Organized Class Notebook</li> <li>• CAT</li> <li>• Oral Vocabulary Quiz</li> <li>• Poster Presentation – Anatomy of Digestion</li> </ul>	<ul style="list-style-type: none"> <li>• ANSC 100</li> <li>• RGSC 100</li> <li>• ANSC 141</li> <li>• ANSC 150</li> <li>• ANSC 170</li> <li>• ANSC 245</li> <li>• ANSC 230</li> <li>• ANSC 151</li> <li>• ANSC 224</li> <li>• ANSC 275</li> <li>• ANSC 255</li> </ul>
3. The student will apply sound financial and management practices	<ul style="list-style-type: none"> <li>• Written Exams</li> <li>• Writing Assignment (2-5 pages)</li> </ul>	<ul style="list-style-type: none"> <li>• ACS 100</li> <li>• ANSC 100</li> <li>• ABM 162</li> </ul>

<p>as well as principles utilized in the agricultural industry</p>	<ul style="list-style-type: none"> <li>• Oral Presentation</li> <li>• Organized Class Notebook</li> <li>• CAT</li> </ul>	<ul style="list-style-type: none"> <li>• ANSC 170</li> <li>• ABM 264</li> <li>• ANSC 245</li> <li>• ANSC 230</li> <li>• ABM 265</li> <li>• ANSC 224</li> <li>• ANSC 275</li> <li>• BUS 221</li> <li>• ANSC 255</li> </ul>
<p>4. The Equine Science student will demonstrate a broad-based understanding of biological and management principles and develop the ability to incorporate the use of these principles into the horse industry along with aptitude to critically evaluate industry issues.</p>	<ul style="list-style-type: none"> <li>• Written Exams</li> <li>• Writing Assignment (2-5 pages)</li> <li>• Oral Presentation</li> <li>• Organized Class Notebook</li> <li>• CAT</li> <li>• Oral Vocabulary Quiz</li> <li>• Pre/Post Test</li> <li>• Oral and Written Reasons – Livestock Judging</li> <li>• Poster Presentation – Anatomy of Digestion</li> </ul>	<ul style="list-style-type: none"> <li>• ANSC 100</li> <li>• RGSC 100</li> <li>• ABM 162</li> <li>• ANSC 150</li> <li>• ANSC 170</li> <li>• ABM 264</li> <li>• ANSC 245</li> <li>• ANSC 230</li> <li>• ANSC 151</li> <li>• ANSC 224</li> <li>• ANSC 275</li> </ul>
<p>5. The Beef Science student will demonstrate a broad-based understanding of biological and management principles and develop the ability to incorporate the use of these principles into the beef cattle industry along with aptitude to critically evaluate industry issues.</p>	<ul style="list-style-type: none"> <li>• Written Exams</li> <li>• Writing Assignment (2-5 pages)</li> <li>• Oral Presentation</li> <li>• Organized Class Notebook</li> <li>• CAT</li> <li>• Oral Vocabulary Quiz</li> <li>• Pre/Post Test</li> <li>• Oral &amp; Written Reasons – Livestock Judging</li> <li>• Poster Presentation – Anatomy of Digestion</li> </ul>	<ul style="list-style-type: none"> <li>• ANSC 100</li> <li>• RGSC 100</li> <li>• ABM 162</li> <li>• ANSC 150</li> <li>• ANSC 170</li> <li>• ABM 264</li> <li>• ANSC 245</li> <li>• ANSC 230</li> <li>• ABM 265</li> <li>• ANSC 275</li> <li>• ANSC 255</li> </ul>

### General Education Competencies

Upon completion of the Animal Science Associate Degree Program and in addition to the above mentioned program objectives:

1. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).

2. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).
3. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

### General Education Competencies Assessment Plan

General education competencies are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
<p><b>Communication</b></p> <ol style="list-style-type: none"> <li>1. Present ideas in writing.</li> <li>2. Present ideas orally according to standard usage.</li> <li>3. Demonstrate application of information technology.</li> </ol>	<ul style="list-style-type: none"> <li>• ENG 299 Capstone</li> <li>• CAAP</li> <li>• CAT</li> <li>• Class Presentation</li> <li>• Class Writing Assignment</li> </ul>	<ul style="list-style-type: none"> <li>• ACS 100</li> <li>• ANSC 100</li> <li>• RGSC 100</li> <li>• ANSC 141</li> <li>• ANSC 150</li> <li>• ANSC 170</li> <li>• ANSC 245</li> <li>• ANSC 230</li> <li>• ANSC 151</li> <li>• ANSC 224</li> <li>• ANSC 275</li> <li>• ANSC 255</li> <li>• COM 102</li> <li>• CIS 101</li> <li>• ENG 102</li> <li>• Lab Sciences</li> </ul>
<p><b>Quantitative and Scientific Reasoning</b></p> <ol style="list-style-type: none"> <li>4. Demonstrate mathematical principles.</li> <li>5. Demonstrate scientific reasoning.</li> <li>6. Apply scientific methods to the inquiry process.</li> </ol>	<ul style="list-style-type: none"> <li>• ENG 299 Capstone</li> <li>• CAAP</li> <li>• Class Exercises</li> <li>• Class Examinations</li> </ul>	<ul style="list-style-type: none"> <li>• ANSC 100</li> <li>• RGSC 100</li> <li>• ANSC 141</li> <li>• ANSC 150</li> <li>• ANSC 170</li> <li>• ANSC 245</li> <li>• ANSC 230</li> <li>• ANSC 151</li> <li>• ANSC 224</li> <li>• ANSC 275</li> <li>• ANSC 255</li> <li>• Lab Sciences</li> </ul>

<p><b>Critical Thinking</b></p> <p>7. Read and analyze complex ideas.</p> <p>8. Locate, evaluate and apply research information.</p> <p>9. Evaluate and present well-reasoned arguments.</p>	<ul style="list-style-type: none"> <li>• ENG 299 Capstone</li> <li>• CAAP</li> <li>• Class Exercises</li> <li>• Class Examinations</li> </ul>	<ul style="list-style-type: none"> <li>• ACS 100</li> <li>• ANSC 100</li> <li>• RGSC 100</li> <li>• ANSC 141</li> <li>• ANSC 150</li> <li>• ANSC 170</li> <li>• ANSC 245</li> <li>• ANSC 230</li> <li>• ANSC 151</li> <li>• ANSC 224</li> <li>• ANSC 275</li> <li>• ANSC 255</li> <li>• Lab Sciences</li> <li>• Social Sciences/ Humanities Elective</li> </ul>
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### Overview

The Animal Science assessment plan is addressed via a plan→do→study→adjust cycle that begins every fall term and follows one Animal Science cohort from first term through graduation.