I. **Student learning Objectives/Outcomes**

1. Describe & apply basic biological information and principles of animal production and management.
2. Discover information and employ scientific principles to critically evaluate the information and its relevance to animal production and management.
3. Synthesize and effectively disseminate information.
4. Systematically analyze ‘real world’ production or service enterprises in order to identify problems and factors that are contributing to the problems, as well as develop tactical solutions for those problems.

II. **Identification of where Objectives/Outcomes are Being Achieved**

To be developed.

III. **Assessment Tools used to Measure Objectives/Outcomes**

**Outcome 1:** Describe & apply basic biological information and principles of animal production and management.

**Direct tool:** National Exam for Veterinary Technicians/Technologists
Graduating seniors with an Animal Science major and a Veterinary Technology emphasis will take the National Exam for Veterinary Technicians/Technologists. This exam is a nationally-recognized exam for assessment of basic knowledge for Veterinary Technicians/Technologists.

**Direct tool:** ARPAS Exam
Graduating seniors with an Animal Science major and a Veterinary Technology emphasis will take the American Registry of Professional Animal Scientists (ARPAS) exam for companion animals. The ARPAS exam is a nationally-recognized exam for assessment of basic knowledge of companion animal production and management. This exam will be administered to graduating seniors by one of the UWRF Animal Science faculty near the end of the student’s final academic term.

**Indirect tool:** Senior Exit Survey
Graduating seniors with an Animal Science major currently complete a senior exit survey during the final class meeting of the Senior Seminar course. Appropriate question(s) relating to outcome 1 are being developed for that survey.

**Outcome 2:** Discover information and employ scientific principles to critically evaluate the information and its relevance to animal production and management.
**Direct tool: Senior seminar – written paper and oral presentation**

During the senior year, a student will participate within the ANSC 485 – Senior Seminar course. Within this course, the student is challenged to locate, interpret, and evaluate scientific literature as it relates to a particular topic of interest. As a result of this literature review the student will:
1. Organize and prepare a scientifically sound written report based on peer-reviewed literature in a subject area related to the major.
2. Organize, prepare, and present a scientifically sound oral report (12-14 minutes) on the same subject.

Each faculty member who teaches a senior seminar class (ANSC 485) compiles a list of percentile grades at the end of the semester. Scores for written and oral presentations are listed and linked to an anonymous student identification number. The achievement goal is that 100% of students will earn an average score equivalent to an achievement level of “Satisfactory” on the relevant criteria from the Written and Oral Rubrics. Relevant criteria for Outcome 2 from each rubric are listed on the following table along with the total points score required to meet the achievement goal:

<table>
<thead>
<tr>
<th>Oral Rubric Criteria</th>
<th>Written Rubric Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Content</td>
</tr>
<tr>
<td>Conclusions</td>
<td>Conclusions</td>
</tr>
<tr>
<td>Questions</td>
<td></td>
</tr>
<tr>
<td>Achievement Goal &gt; 22 points</td>
<td>Achievement Goal &gt; 20 points</td>
</tr>
</tbody>
</table>

See Appendices 2 & 3 for copies of the two above-listed rubrics.

**Indirect tool: Senior Exit Survey**

Graduating seniors with an Animal Science major currently complete a senior exit survey during the final class meeting of the Senior Seminar course. Appropriate question(s) relating to outcome 2 are being developed for that survey.

**Outcome 3:** Synthesize and effectively disseminate information

**Direct tool: Senior seminar – written paper and oral presentation**

The assessment tool utilized for outcome 3 will be identical to the tool used for outcome 2. The achievement goal is that 100% of students will earn an average score equivalent to an achievement level of “Satisfactory” on the relevant criteria from the Written and Oral Rubrics. Relevant criteria for Outcome 3 from each rubric are listed on the following table along with the total points score required to meet the achievement goal:

<table>
<thead>
<tr>
<th>Oral Rubric Criteria</th>
<th>Written Rubric Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation Delivery</td>
<td>Writing Quality</td>
</tr>
<tr>
<td>Conclusions</td>
<td></td>
</tr>
<tr>
<td>Achievement Goal &gt; 14 points</td>
<td>Achievement Goal &gt; 12 points</td>
</tr>
</tbody>
</table>

See Appendices 2 & 3 for copies of the two above-listed rubrics.
**Indirect tool: Senior Exit Survey**
Graduating seniors with an Animal Science major currently complete a senior exit survey during the final class meeting of the Senior Seminar course. Appropriate question(s) relating to outcome 3 are being developed for that survey.

**Outcome 4:** Systematically analyze ‘real world’ production or service enterprises in order to identify problems and factors that are contributing to the problems, as well as develop tactical solutions for those problems.

**Direct tool: Internship**
No specific tool has been identified yet for this outcome. It is the intention to use feedback from the student’s internship as a mechanism to provide this feedback. Appropriate question(s) relating to outcome 4 will be developed for that survey.

**Indirect tool: Senior Exit Survey**
Graduating seniors with an Animal Science major currently complete a senior exit survey during the final class meeting of the Senior Seminar course. Appropriate question(s) relating to outcome 4 are being developed for that survey.

**IV. Timetable Indicating the Cycle of Assessment and Continuous Improvement**

**Outcome 1:** Graduating seniors will take the ARPAS exam during the last two weeks of their final semester. Results for December graduates will be compiled, analyzed, and discussed by faculty/staff within the Animal Science and Dairy Science programs at the first staff meeting of the Spring semester of the current academic year. Results for May graduates will be compiled, analyzed, and discussed by faculty/staff within the Animal Science and Dairy Science programs at the first staff meeting of the Fall semester of the following academic year. Plans for curricular improvements, based on the analyses, will be detailed at the same meeting of faculty/staff.

**Outcome 2:** Results for the Fall semester will be compiled, analyzed, and discussed by faculty/staff within the Animal Science and Dairy Science programs at the first staff meeting of the Spring semester of the current academic year. Results for the Spring semester will be compiled, analyzed, and discussed by faculty/staff within the Animal Science and Dairy Science programs at the first staff meeting of the Fall semester of the following academic year. Plans for curricular improvements, based on the analyses, will be detailed at the same meeting of faculty/staff.

**Outcome 3:** Results for the Fall semester will be compiled, analyzed, and discussed by faculty/staff within the Animal Science and Dairy Science programs at the first staff meeting of the Spring semester of the current academic year. Results for the Spring semester will be compiled, analyzed, and discussed by faculty/staff within the Animal Science and Dairy Science programs at the first staff meeting of the Fall semester of the following academic year. Plans for curricular improvements, based on the analyses, will be detailed at the same meeting of faculty/staff.
Outcome 4: Results from the internships will be compiled following completion of the projects. Analysis and discussion of the results will be completed by individuals with significant teaching roles within the upper-division Animal Science courses and plans for improvement will be made prior to July 1 of the current academic year. Results and improvement plans will be reported to all faculty/staff within Animal Science and Dairy Science programs at the first staff meeting of the following academic year. Individuals involved within proposed improvement plans will be alerted to suggested curricular improvements at this same meeting.

V. Data Presentation and Discussion Process

All faculty/staff within the Animal Science and Dairy Science programs will be involved in the assessment process, at least indirectly. Results will be presented and discussed at scheduled staff meetings as detailed in the section above.

Data will be saved for future reference on the G: drive (Departmental storage space).

VI. Implementation of Revisions Based on Assessment Results

Suggested improvements, based on the analyses detailed above, will be solidified at scheduled staff meetings of the Department. The Department Chair will be responsible to see that implementation of improvement plans occurs within prescribed courses at the appropriate time.

VII. Results Availability

Results relative to each outcome will be saved for future reference on the G: drive (Departmental storage space). Individual students will be provided results for outcomes 2, 3, and 4 within the courses where the assessment tools are implemented. Furthermore, results of the ARPAS exam will be provided (written letter sent to permanent address listed with UWRF) to each student that completes the assessment tool. Results and suggested improvement plans will be communicated at the institutional level via the annual Academic Program Assessment Report. At this time, the Department does not plan to publish the assessment results to the general public.