Expected Outcome 1: Understanding complex scientific concepts

Within the scientific discipline of livestock reproduction, ovarian folliculogenesis is a difficult concept for many students to understand because of the dynamic growth and development of ovarian follicles in three dimensional space over time as directed by a specific sequence of hormones - ultimately resulting in the ovulation of a viable ovum for fertilization. Students taking ANSC-3600 Reproductive Physiology are expected to have a working scientific knowledge of this important biological event upon completion of this course.

Assessment Method 1: Student understanding of individual components comprising the biological process of ovarian folliculogenesis.

Assessment Method Description
To assess student understanding of specific sequential steps involved in ovarian folliculogenesis, six (6) targeted test questions related to the student’s understanding of individual components of this complex concept were asked on in-class written examinations - four multiple choice questions on a regular hourly exam given at approximately mid-semester followed by one multiple choice question and one fill-in-the-blank (FITB) question on the comprehensive final exam.

Findings
Correct responses to the six (6) questions related to student understanding of sequential steps involved in ovarian folliculogenesis were as follows: Q1 = 66.7%, Q2 = 88.2%, Q3 = 86.3%, Q4 = 74.5%, Q5 = 84.3% and Q6 (FITB) = 80.4% resulting in an overall 80.1% student understanding of this concept (average of percent correct responses across the six questions).

How did you use findings for improvement?
Overall, students demonstrated an acceptable understanding of the overall concept of ovarian folliculogenesis. However, correct responses were relatively low for two specific components (reflected in Q1 and Q4). Therefore, lecture material is being modified to add more visual imagery to clarity and strengthen student understanding of these two components.

Additional Comments
N/A
Expected Outcome 2: Competence and comfort level handling livestock

Senior exit interviews by our Department Head revealed a common interest among our students with urban backgrounds for additional practical hands-on experience with animals to increase their competence and comfort level handling livestock. To that end, a new course was developed, ANSC-2910 Practicum in Livestock Welfare and Management, and first offered Fall 2011. Academic year 2012-2013 represents the second full year this course has been offered, thus it is still being modified to best meet program expectations and student needs.

**Assessment Method 1:** Increasing urban student competence and comfort level handling livestock humanely

**Assessment Method Description**

Although enrollment is intentionally limited to ensure close interaction with the instructor and the animals, the course routinely fills to capacity (indicating popularity among the students it was designed to help). An end-of-the-semester questionnaire was developed containing nine student learning outcome statements that each student was asked to score (scale of 1-10, 1=low agreement, 10=high agreement) regarding their knowledge of and comfort level at the end of the course (such as: having a broad understanding of behavioral tendencies of livestock, possessing the ability to employ appropriate methods of humane animal restraint, familiarity with the application of common management practices and overall learning experience).

**Findings**

On a scale of 1-10 (1=low, 10=high), 93.7% of all student ratings were in the 8-10 (very high) category with the remaining 6.3% falling in the 5-7 (high) category. There were no student ratings below 6. Common quotes from student evaluations include, "Wouldn’t change a thing.", "I would love even more time with the animals."

Additional, more insightful student comments include: "Practicum was by far one of my favorite classes at Auburn. It grants students of all backgrounds the opportunity to learn and experience situations involving livestock. I would highly recommend it to any student! It allowed me the opportunity to take everything learned in the classroom setting and apply it to real situations." and "I consider the practicum class to be one of the most useful classes I have taken here at Auburn. Having lived in the suburbs my whole life, the practical experience was invaluable.... The class not only gave me real life experience hard to come by in such a variety of fields, it also allowed me to apply my knowledge gained through traditional lecture classes and give a deeper meaning to the purpose of my education. This class is extremely valuable not just to the department but to the field of agriculture as a whole. Through this class I have seen city kids wanting
to be a vet so they can play with cute puppies develop a deep appreciation of agriculture, an appreciation that is hard to impress upon them by other means. My only regret is that I did not take this class sooner."

**How did you use findings for improvement?**
This new course is meeting it’s intended purpose at full but limited enrollment. Our current plan for improvement is to explore ways to increase seat offerings so even more of our growing population of urban students can take advantage of this much-needed, much-appreciated practical educational experience without losing the important close instructor-student-animal interactions.

**Additional Comments**

**Expected Outcome 3: Professional Development in Animal Sciences**

Students will be able to communicate effectively using terminology and concepts appropriate for contemporary livestock production.

**Assessment Method 1:** Student performance in introductory Animal Science course

**Assessment Method Description**
Students initially will be exposed to and tested on this material in the ANSC-1000 Introduction to Animal Science course.

**Findings**
Students in Introductory Animal Science course averaged 80%+ on appropriate use of terminology and concepts appropriate for contemporary livestock production

**How did you use findings for improvement?**
Initial assessment indicated that students are learning the appropriate amount of information at this level of instruction.

**Additional Comments**

**Assessment Method 2:** Follow-up student performance in upper-division Animal Science courses

**Assessment Method Description**
Student proficiency was again evaluated by other faculty in written assignments in junior-level discipline courses (ANSC-3400 Animal Nutrition, ANSC-3500 Animal Breeding and ANSC-3600 Reproductive Physiology) and written assignments/oral presentations in the Senior-level production courses (ANSC-4000, 4050 and 5010).

**Findings**
Faculty teaching required junior-level discipline courses (Nutrition, Breeding, Reproduction) were interviewed and indicated collectively that, while students remember specific livestock terminology from their freshman-level introductory course when quizzed on it, they aren’t using proper terminology in general classroom discussions until prodded to do so.
**How did you use findings for improvement?**

Two corrective actions have been taken: 1) Faculty teaching the freshmen-level introductory course have been encouraged to emphasize day-to-day use of the proper terminology in lecture and laboratories and throughout the rest of their degree program and career and to increase the inclusion of proper terminology in as many assignments, quizzes and examinations as possible, and 2) Faculty teaching the junior-level discipline courses have been encouraged to begin each semester with a review of appropriate livestock terminology, emphasizing the importance, and/or administer a pre-test (contributing to the course grade or not) to further emphasize the importance and create a monitoring system for future assessments.

**Additional Comments**