## Annual Progress Report on Assessment of Student Learning Accredited Programs (Undergraduate) (Rev 10/08)

Academic year: 2008-09 Department/Program: Doctor of Veterinary Medicine Degree program(s): DVM Person(s) preparing report: Melinda J. Wilkerson Date submitted: May 2009

## Summary of the 2008-2009 Annual Progress Report on Assessment of Student Learning

In response to a Curriculum Task Force report and assessment data, the CVM is on track with implementing a curricular change in the Doctor of Veterinary Medicine program. The first and fourth years have already implemented changes in the curriculum addressing the need to increase clinical skills training both in the pre-clinical and clinical years. Three one credit hour summer mentorship courses have been added for the students in the first, second and third years to gain clinical skills and exposure to skills in small and large animal practices and nontraditional fields. Elective courses have been added to the first and fourth year curriculum to provide flexibility and opportunities for students to focus on areas of interest. The one45 assessment recording program has been in place for one year and has provided "Spiderplots" of the senior students that measure their clinical proficiency and knowledge/skill profiles in 9 clinical competency areas as required by AVMA accredited schools (See Attachments). Primary data analysis indicates no significant correlations between the clinical competency assessment scores and undergraduate science GPA, GRE, and the NAVE. The one45 software was used to document 18,492 technical procedures by the senior class of 2009. These technical skills included 104 required core and portfolio procedures, records of the skills performed per nine species and discipline. An average of 160 procedures was documented per student (112 students in the class). The procedures were evaluated fairly equally by faculty, house officers, and technicians (range of 4,000 to 8,600 per group). Based on the results of the procedure logs from this year, several changes in the numbers and types of procedures were made in 8 clinical rotations so that the procedures were as relevant as possible to expectations for a graduate veterinarian. The faculty provides comments to each procedure recorded by the student that acts as formative feedback for that student. An Implementation Team of faculty representing the CVM Departments is currently working on the curricular changes for the second and third years. These curricular changes are expected to be in place by next year.

## Alignment Matrix, and 2008-2009 APR Summary are posted

http://www.vet.ksu.edu/admit/dvm.htm

Alignment Matrix for degree program is attached or was previously submitted

X

- 1. Describe how the degree program SLOs that are assessed for accreditation are inclusive of the university undergraduate SLOs (knowledge, communication, critical thinking, diversity, academic and professional integrity): See SLO Alignment Matrix documents for each year
- 2. What assessment measures were used? Multiple Direct and Indirect measurements Direct
  - a. North American Veterinary Licensing Examination
  - b. Clinical Competency ratings using one45 software (2009 data is attached)
  - c. Pre-clinical and clinical grades

Indirect

- a. Senior Survey of veterinary curriculum and clinical experiences and how the KSU curriculum prepared the students for the nine AVMA clinical competencies.
- b. Job placement data
- c. Alumni Survey done in 2006 for Alumni of Class of 2005, 2002, and 2000
- d. Videotaped Client Interactions (SLO 8) The videotaping is assessed by Dr. Mac Hafen (KSU CVM counselor) using the Calgary-Cambridge observation guide. A minimum level of competency must be attained in communication to graduate. Kansas State University is the only College of Veterinary Medicine utilizing actual student/client interactions for student training. All other programs with communication training programs utilize role-playing with actors or client simulations.
- 3. What was learned from the assessment results?

100 out 106 or 94% of the KSU DVM candidates that took the NAVLE examination in December of 2008 passed. This passing rate is similar to the passing rate for all AVMA-accredited schools in which 2690/2880 (93%) received a passing score.

Job placement data for Class of 2009 indicated -76/112 (68%) were placed in veterinary practices, 32/112 (29%) graduate study or internships/residencies, 1/112 placed in industry; 3 positions not unknown

Dr. Hafen's communication training report demonstrated improvement in scored data (recorded by observation of senior students) in various categories from the 1st to 2nd taping session following one feedback session in between. Communication variables that were rated included nonverbal, delivery of findings to clients, organization of discharge, building rapport with clients, opportunities to ask questions, professionalism, requesting clarification, listening effectively, utilizing summarizing statements, and setting expectations. After being filmed twice and having one feedback session, students showed the most proficiency in their nonverbal behavior and professionalism. The filming experience had the greatest impact on 4<sup>th</sup> year veterinary medical students' nonverbal behavior, delivery of findings, and building rapport with clients. The communication evaluation was not influence by class rank, area of specialization, and gender. Communication skills as scored by clinicians did not correlate to score data from a communication professional, but does correlate to class rank and gender.

Senior survey findings for the Class of 2009 indicated improvement in the rating scores for preparing students for the following clinical competencies compared to the 2008 survey: a. decision-making for patient referral, b. basic soft tissue surgery skills, c. orthopedic examination, d. interpretation of orthopedic radiographs, e. management of general medicine cases, f. emergency case management, g. animal welfare and health promotion, h. food safety, disease prevention, and i. appreciation for the role of research in furthering the practice of veterinary medicine. Below average scores were identified in 2008 for preparation in and confidence with orthopedic surgery skills indicating the students evaluated themselves low on surgery skills and that the expectation for the student was mastery in surgical skills. Therefore, the original questions were replaced with more directed questions in the 2009 survey that asked the students to evaluate their ability to Perform Orthopedic exam and to Interpret Orthopedic radiographs. The ratings for these abilities were higher than the 2008 survey. A skill that has been consistently rated by students as below average in 2008 and 2009 is business skills. A new elective capstone course CS 774 has been added to address the business skills deficiency. We will monitor the survey results in 2010 after students have had the opportunity to take the new elective course.

One45 assessment for Clinical Competency scores of the 9 clinical competencies (CC) indicate mean and median values for each of the 9 CC to range from 3.20 to 3.7. The minimum scores are no less than 2.6 and maximum scores reach 4.6 out of a 5.0 scoring system. Clinical competency categories that had the lowest mean scores were Prevention zoonosis and surgery skills (3.2 and 3.3)

## 4. What actions were taken in response to the assessment results?

A curriculum task force (CTF) met over the years of 2005 – 2007 and evaluated input from senior students exit interviews, alumni surveys, faculty and student interviews, and from national needs reports presented by the Association of American Veterinary Medical Colleges (AAVMC). Based on this information gathering process, the CTF proposed the following changes in the KSU CVM curriculum including: 1. Adjust semester structure and organization of courses. 2. Identify core content for entry level skills. 3. Increase flexibility through elective course work throughout the 4 year program. 4. Increase clinical skills training. The CTF presented a proposal to revise the DVM curriculum to the CVM faculty in the summer of 2007. CVM faculty voted to approve the proposal to have a core curriculum with more electives than currently available. An implementation team of faculty from each department was assigned to facilitate the implementation of a new curriculum. As of September 12th 2008, the 4<sup>th</sup> year curricular changes were approved by the CVM faculty and Faculty Senate and will go into place May 2009. Many 4<sup>th</sup> year courses were changed from 3 credit hours to 2 hours to allow for more flexibility for the students in selecting the elective coursework in their senior year. At this time we have implemented changes in the first and fourth year curriculum. First year curricular changes were focused on providing elective credits for freshmen and an integration course for each semester to allow the student to practice problem solving using a case based approach. First year electives included a course to introduce multicultural and diversity topics to veterinary students as it relates to the veterinary profession and a critical thinking course to introduce students to skills of critical thinking and evaluation of published veterinary literature. Fourth year curricular changes were focused on providing technical skills and experience in primary care, and students are required to obtain an off-site experience at a primary care facility.

Based on the preliminary data areas of improvement include providing business skills, prevention zoonosis, and surgery skills...

What were the outcomes of those actions?
We will be monitoring the outcomes of the changes in our assessment tools.
We are in the midst of collecting data and analyzing correlations with SLO Clinical Competencies and other variables including GRE scores, admission science GPAs, preclinical GPAs, and NAVLE scores.