

'Developing an Incredible Curriculum': A Faculty Perspective

By Herb Whiteley

There is a growing conviction that our new approach in veterinary education is achieving the goal of fostering in students, at an early point in their studies, a deeper understanding of how basic science concepts relate to practice.

Dr. Mark Kuhlenschmidt, a long-time faculty member who is currently serving as interim department head for Pathobiology, admits that he was initially extremely skeptical about the Illinois Integrated Veterinary Professional Curriculum.

After all, he thought, Illinois students had been doing just fine the way things were being taught previously. And the new curriculum requires so many faculty members and so much of their time.

Dr. Kuhlenschmidt says he has "done a 180 degree turnaround" after his experience as course coordinator for VM 607, the seventh course in the new curriculum, which occupies the first eight weeks of spring semester during the second year.

Here is what he had to say about the year and a half he spent preparing for and then teaching the course.

"We started putting the course together in the fall of 2009, and we piloted the small group laboratory concept in spring 2010. It worked, so we had a model to build on," says Dr. Kuhlenschmidt.

"A group of ten faculty members met every week throughout the following summer to develop this one course. As we reviewed content from previous lectures to separate information that students *need* from details it would be *nice to know*, it was helpful to have nine other scientists learning your area and giving feedback.

"A lot of consideration went into determining what content was 'core' and into organizing the content so it would not overwhelm the students.

"For the labs in VM 607, the class of 120 students was divided into four groups, each of which completed the lab at a different time. Drs. Susan Steenbergen, Gee Lau, Pat Hoiem-Dalen, and I, along with graduate teaching assistants Anisha Misra and Yan Sun, each worked with groups of about eight students during the 90-minute labs. We did that four times a week so all 120 students had this small-group experience."

“In a small group like that we had the opportunity to be up close and personal and to engage in back and forth conversation in a way we never had before.

“Because instructors and students were interacting in small groups, the students felt comfortable asking detailed questions in lectures too. They were excited about what they were learning because, after their experiences in the clinical rotations, they could see how information would be translated into practice.

“The students’ enthusiasm made teaching an invigorating experience for the instructors. It was time intensive, but we really had a lot of fun and looked forward to the days with labs.

“The final exam in that class was more challenging than any I had ever given before. It integrated material from parasitology, protozoology, bacteriology, mycology, virology, and basic antimicrobial pharmacology. Previously students would study each of those disciplines as a separate course, so each final was much less comprehensive.

“I was very apprehensive about the level of difficulty. The students also reported that they found the exam difficult, but they did extremely well: The average grade on the test was 85.

“I want to continue to teach this new way despite the time commitment because I strongly believe it is the approach that works best for the students.

“The template for this new curriculum is refreshing and reinvigorating. It instills educational values in students. They can see how they are going to use the information, and they take ownership over their learning rather than being told what to learn. It’s the difference between active and passive learning.

“As we continue to make refinements, we are developing an incredible curriculum that fosters real conversion of information into knowledge, rather than just a series of facts. I believe we have a unique program that will set the standard for veterinary education.

“All of our faculty should be congratulated.”

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First Milestone

Two comprehensive “milestone” examinations have been built into the IIVPC, one midway through the second year, the other just before the clinical year begins in March of year three.

The first milestone exam took place last December. It consisted of a three-hour, 150-question written exam and that same week a practical exam assessing numerous clinical skills at 16 stations, ranging from restraining a dog for venipuncture (and then drawing blood from a venipuncture model) to lifting a horse’s foot and bandaging a horse’s limb. More than 40 faculty members, residents, technicians, and other staff members were involved in facilitating the skills assessment; it took four days to test all 120 students.

The goal was as much to evaluate the curriculum's effectiveness as to help students identify their own areas of strength and weakness. The written exam also gave students a taste of what the NAVLE will be like.

Students' mean and median scores on the written examination were 70%. They were given an opportunity to review every question they had missed. For the majority of the clinical skills assessed, fewer than 10% of the students needed remediation. Fifteen students tested proficient in all clinical areas.

Students gave consistently positive feedback about the milestone exams. Most felt that it fairly reflected the course content thus far and gave them a sense of where they needed additional study.

Another sentiment that was widely held: students wished they had spent more time in the Clinical Skills Learning Center. Future classes, be warned!