



WAYNE STUART, MD and KATHLEEN EHRHARDT, MMS, PA-C
PHYSICIAN ASSISTANT PROGRAM
DE SALES UNIVERSITY, PENNSYLVANIA

Wayne Stuart, MD is an Orthopaedic Surgeon who teaches full time as Assistant Professor at De Sales University in Pennsylvania. Kathleen Ehrhardt, MMS, PA-C is a Physician Assistant as well as an Assistant Professor at DeSales. She also works part-time in Gynaecologic Oncology. They both teach on the Physician Assistant Program at the University and have been using Primal Pictures for the past two years to teach their students anatomy and physiology.

Wayne explains, “Primal Pictures came to us *de novo* to present their software. At the time, we were unhappy with the products we had previously been using. The Primal program impressed us and we decided to purchase it for our students and faculty members. We have 40 students per year for the two year professional phase of the program and with 50 available slots; all of our faculty and students have online access to the software.

“Our program is 11 years old and since the school is not affiliated with a medical school, we have never used cadaver dissection for the anatomy part of our program. In addition to the expense and problem of material supply associated with dissection (ie. the shortage of cadavers), we have to consider another factor - time. Our curriculum is 24 months long, with only 12 devoted to didactic teaching so we are already pushed. Finding additional time for cadaver dissection would prove difficult.

“Kathy and I teach a course in Clinical Anatomy and Physiology, given in the fall semester. We use a combination of lecture and lab work and the students also have a textbook and anatomy atlas as required purchases. In addition, we use a case study format. The students have had prerequisite introductions to Human Anatomy and Physiology as undergraduates and we teach the class from a clinical perspective. As we do not have a cadaver lab, we use the Primal Pictures program to gain the three dimensional aspect of anatomy and an appreciation for dissection.”

“We purchased access to the Primal program through the internet, and the students have access 24 hours a day at home or in the University computer lab,” continues Kathy. “We have a required lab time when we are present for questions and we set assignments to turn in that required use of the program. In addition, we have a dissection-based guide with essential terms highlighted that helps them organize their study.

“With regards to how the students like the program, we have certainly received far fewer complaints than with the previous program that we used. It is clear, accurate, and flexible and it strikes a nice balance between clarity and anatomy accuracy. It allows three-dimensional rotation, which enhances the students’ understanding, and it has an attached text which allows the students to search by keyword, similar to on the internet. The students use it in the lab, to prepare for tests, and also to review anatomy when on clinical rotations, such as before surgery. We use the graphics occasionally in lectures, and we also give a practical exam based on the program.

“Certainly, we plan to use Primal for the foreseeable future. There is much debate on the future of cadaver teaching for anatomy in medical schools and in other health professions. It takes a lot of resources and time to adequately teach using cadaver dissection and, more and more, schools will turn to software programs that simulate cadaver anatomy as an alternative.”