



FEATURED TEACHER

Dr. Carol Haspel Innovator in Anatomy Instruction

“Innovative” and “dedicated” are words that come to mind when describing the seminal change that Dr. Carol Haspel has brought to the Fundamentals of Human Biology Program at LaGuardia Community College. After more than three decades as professor of anatomy and physiology, Dr. Haspel now embraces a new method of laboratory instruction using the Anatomy in Clay® Learning System. As Professor/Coordinator of the program, she has taken an analytical approach to determining how diverse, multi-lingual students can best learn the muscles of the human body.

The LaGuardia Campus (at the City University of New York, or CUNY) has more than 40 class sections of anatomy and physiology per semester, with nearly 1,000 students (mostly Allied Health) in lab classes to learn the intricacies of human body systems. Muscle study had traditionally been accomplished at LaGuardia by dissecting cats, until a number of years ago when one of Dr. Haspel’s students refused to dissect for religious reasons.

She remarks, “This student knew she had to pass

the exam, which entailed learning all the muscles of the human body as well as their origin, insertion, and action. So she researched an alternative to dissection and found the Anatomy in Clay Learning System. She virtually taught herself the muscle system using a Maniken® model in the same amount of time that other students were dissecting cats.”

Haspel was so impressed with the student’s test scores and muscle knowledge after using the Anatomy in Clay Learning System that she began a series of pilot studies to compare exams of students who used dissection with those that used Maniken models. Results of the

studies indicated that test scores using the models had a statistically significant improvement over those based on dissection. Dr. Haspel notes further, “By building the muscle system themselves from the inside out, the students tended to remember the information more.”

The success of the pilot study encouraged Professor Haspel to

seek a New York State Perkins grant to purchase 159 Maniken Student 2 models for the LaGuardia campus. LaGuardia has moved away from cat dissection all together – although they do work with rat carcasses minimally so that students have some dissection experience. She notes that making the change from cat dissection to working with the models was a commitment. Storage areas were revamped, curriculum guidelines adjusted, and faculty learned a new way of teaching.

Nonetheless, Dr. Haspel thinks the change was worth it, stating “Hands-on clay work is a nice, tactile experience and a proficient way to learn body systems. And since we don’t study just one body system – the Maniken models can be used more broadly, to help amortize our costs over time.”



Anatomy class at La Guardia Community College, CUNY. © LAGCC/CUNY.

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NOW OFFICIALLY OPEN!

Professional Development workshop in November 2011, at Anatomy in Clay® Centers Denver.

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SELECTED 2012 EVENTS

- **Anatomy in Clay**
Professional Development Workshop: Level 1
January 6-7 San Antonio, TX
www.anatomyinclay.com
- **American Physical Therapy Association**
February 8-11 Chicago, IL
www.apta.org
- **National Science Teachers Association**
March 29-April 1 Indianapolis, IN
www.nsta.org
- **American Association of Community Colleges**
April 21-24 Orlando, FL
www.aacc.nche.edu
- **Human Anatomy and Physiology Society**
May 26-31 Tulsa, OK
www.hapsweb.org
- **Health Occupations Students of America**
June 20-23 Orlando, FL
www.hosa.org
- **High Schools That Work**
July 11-14 New Orleans, LA
www.sreb.org/page/1078/high_schools_that_work.html



Professional Development Workshop: Level 1

January 6-7, 2012
8:00 AM TO 4:00 PM
San Antonio, Texas

Reignite your Health Science and Anatomy Instruction with Engaging, Interactive, Hands-on Teaching!

Our Professional Development Workshop provides teachers and administrators with practical strategies created to enhance the Anatomy in Clay Learning System in your classroom. Key elements include hands-on overviews of terminology, muscle and bone identification, body systems, effective use of clay, and managing the classroom environment.

“The mind cannot forget what the hands have learned.™”

Location

Our Lady of the Lake University
411 SW 24th Street, San Antonio, TX 78207

Registration Fees / Information

Fee for the 2-day workshop is \$300. The skeletal model and clay will be provided. To reserve your seat, please email april@anatomyinclay.com or call April at 800-950-5025. Contact your educational consultant for more information:

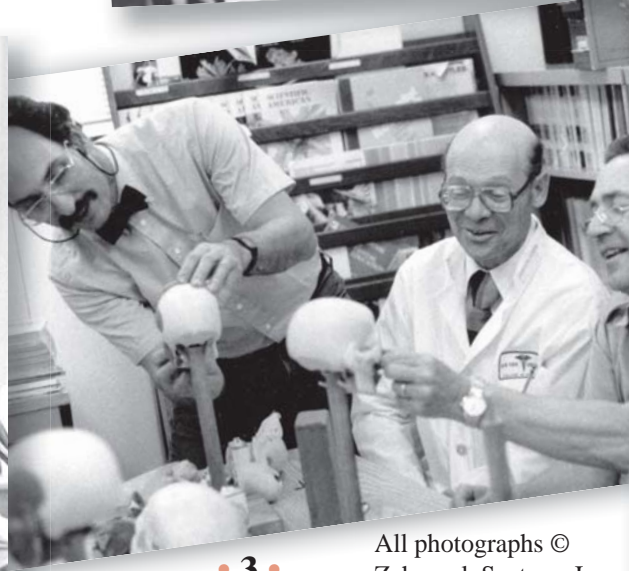
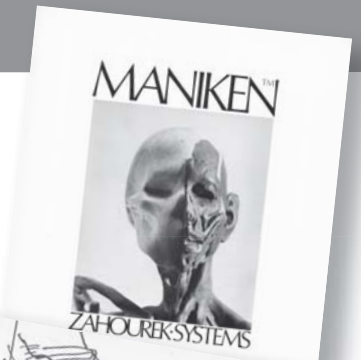
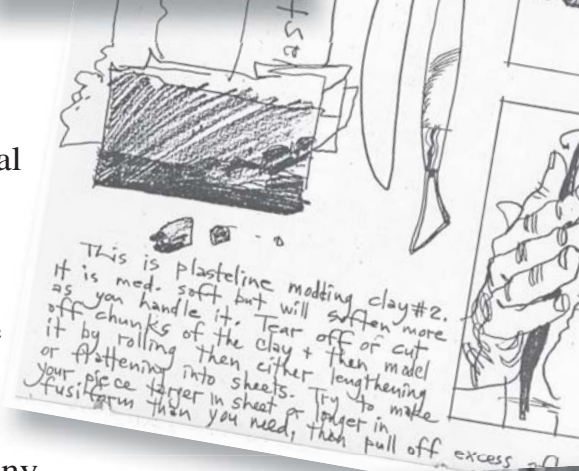
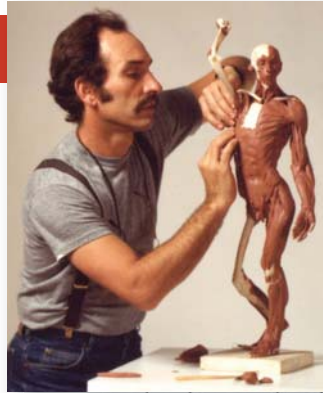
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- Leslie Peterson (Eastern U.S.) leslie@anatomyinclay.com



30 HANDS-ON YEARS

In December 1981, Jon Zahourek made the first public announcement of his new creation, the Maniken® model. The scale-model skeleton that is the basis of the Anatomy in Clay® Learning System was developed as a tool for teaching anatomy to artists in New York City, where he lived at the time. The activity of building muscles of clay on a skeletal model not only improved upon traditional approaches, including dissection and memorization, but it had the unexpected — and desirable — side effect of boosting self-confidence and body awareness.

In the following decades, the company and its systems have grown and evolved. The flow of models has expanded to classrooms throughout the country and the original Maniken model has been joined by newer models with advanced features and comparative structures for the study of the dog and horse.





WHAT'S NEW? Research in Anatomy and Hands-on Education from Around the World

- A task force implemented by the American Psychological Association in the 1990s outlined four categories and fourteen principles critical to student success. Of the practical conditions suggested for teachers, “Condition No. 4” is that “learning must be active, not passive ... [students] must be provided with opportunities for hands-on learning.”

[“Learner-Centered Conditions that Ensure Students’ Success in Learning.” David M. Brown. *Education*. Fall 2003]

- Are some organs of the body more important than others? In a hands-on teaching activity, students were given role-playing assignments targeting selected body organs. Teams researched organs and their roles within the body, developing and utilizing research

skills, cooperative learning, and learning strategies as they explored human anatomy. The resulting skits demonstrate the value of the assigned subjects; participants must also withstand questioning from peers and class leaders. The project time ranged from hours to weeks. According to the authors, this structured activity “benefited some of our students ... by motivating them to engage in deep learning that results in meaningful understanding of material and content.”

[“Effective Understanding of the Human Body Organs: A Role-Playing Activity for Deep Learning” About H. Cherif, Dianne Jedlicka, Ateegh Al-Arabi, Robert Aron, Sujata Verma. *The American Biology Teacher*. Volume 72, No. 7, 2010]

GRANT OPPORTUNITIES

- American Honda Foundation. Grants of \$20,000 to \$40,000 to programs that are “imaginative, creative, youthful, forward-thinking, scientific, humanistic, and innovative” with a focus on STEM subjects. Public and private K-12 programs are eligible with four grant cycles each year. Deadlines for 2012: February 1, May 1, August 1, November 1.

www.corporate.honda.com/america/

- ING Unsung Heroes. An annual program with cash awards for class projects that are “short on funding but long on potential.” Eligible educators are from K-12 programs “utilizing new teaching methods and techniques that improve learning.” One hundred finalists each receive \$2,000, with additional awards of \$5,000, \$10,000, and \$15,000 for the top winners. Deadline for 2012: April 30, 2012.

www.ing.us/about-ing/citizenship

DID YOU KNOW?

Bernard Siegfried Albinus (1697-1770). Born in Germany, Albinus (he is also known by another family name, Weiss) moved while still young to the Netherlands, where his father held a position as professor of medicine. After completing his own studies, he taught anatomy, surgery, and medicine at the University of Leiden from 1721 on; two of his brothers also taught these same subjects at this institution. Albinus is credited with being the first person

to record the vascular systems that connected mother and fetus and was widely known in his lifetime for his skill at teaching anatomy in the classroom. In 1747, he published *Tabulae sceleti et musculorum corporis humani* (Tables of the Skeleton and Muscles of the Human Body). Noted for the detailed, accurate engravings by the Dutch illustrator Jan Wandelaar, they are still regarded as one of the classics in the history of anatomical publishing.

