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From: Missouri Area Health Education Centers

M.E.S.A. Dissection Labs going strong since 2005!

Medical **E**xplorations in **S**cience and **A**natomy (**M.E.S.A.**) began in the fall of 2005 as an opportunity for high school and undergraduate students around Missouri to participate in a program designed to provide hands-on learning close to home but not normally available to them. This series has been broadcast via ITV (Instructional Television), Google Hangout and most recently, Zoom, from the studios at A.T. Still University/Kirkville College of Osteopathic Medicine in Kirkville to the regional AHEC Centers throughout the state. The presentations are video recorded to be available for workshops which enhance skills to prepare and motivate students interested in primary healthcare careers.

The instructors for MESA labs are medical students who are completing a fellowship in Kirkville. Lab assistants in Kirkville have been other healthcare students – dental, nursing, pre-med, pre-dental, health and exercise science. The regional centers also have medical or nursing students assisting with the dissections at their site. Collaboration between the ATSU/KCOM, ATSU/MO School of Dental and Oral Health and Truman State University has provided a wealth of resources to healthcare students.

The goals for each M.E.S.A. dissection lab vary depending on the specimen; however, each lab includes a comparison between the specimen and human anatomy; a pre-course assignment, hands-on instruction, lecture notes, assessment; and the use of dissection equipment and specimens.

Since the pilot program in 2005, almost 1700 students have attended the 168 sessions at one of the seven AHEC locations. Thirty different medical and biomedical students have been instructors for the labs at the Kirkville site. Examples of dissection specimens include: sheep brain, cow eyes, pig kidney, pig heart, all systems (musculoskeletal, respiratory, reproductive, GI tract, dental) of a mink, cow jaws and deer jaws (for dental/oral health), and cancers of the lung and testicles.

The M.E.S.A. dissection labs make a significant contribution to the MAHEC Mission: “To enhance access to quality healthcare, particularly primary and preventative care by **growing and supporting Missouri’s health care workforce.**” Plans are already underway for labs to be scheduled in the fall and spring semesters this year.

Medical student, Derek Beatty, instructing students from Newtown-Harris on dissection techniques.

MAHEC is a partnership of seven locally-governed organizations and three university-based health professions education programs working statewide to increase the numbers of Missouri youth entering stable, high-paying jobs as healthcare professionals and the numbers of professionals caring for underserved populations.

The MAHEC partners include:

- A.T. Still University – Kirkville
- University of Missouri – Columbia
- Saint Louis University
- Northeast Missouri AHEC – Kirkville
- Northwest Missouri AHEC – St. Joseph
- West Central Missouri AHEC – Lexington
- Mid-Missouri AHEC – Rolla
- East Central Missouri AHEC – St. Louis
- Southeastern Missouri AHEC – Poplar Bluff
- Southwest Missouri AHEC – Springfield