

Online Operation of Earth and Environment's Electron Microscopes Featured at the Southeastern Geological Society of America Meeting

Earth and Environment's electron microscopy laboratory (<https://fcaem.fiu.edu/>) was featured at a workshop at the recent Geological Society of America SE section meeting in Chattanooga, TN. With the assistance of Earth and Environment Post-doctoral Scholar, Dr. Sven Holbik, and Engineer II Thomas Beasley, 50 attendees remotely operated EAE's electronprobe microanalyzer and scanning electron microscope online as part of a project funded by the National Science Foundation's "Transforming Undergraduate Education in Science (TUES) program". Collaborating PI's, USF Geoscience Chair Dr. Jeffrey Ryan, FGCU Geology Professor Dr. James MacDonald and Valencia College Professor Mary Beck demonstrated how they and their students use FIU Earth and Environment's "probe" and SEM remotely during undergraduate classes at their institutions, facilitating the transition of undergraduate students from passive, directed learners to engaged, self-directing investigators. The \$600K project, anchored by FIU PI Dr. Rosemary Hickey-Vargas, is a national prototype for the development and expansion of online access and use of major analytical instruments for educational purposes in the Geosciences.



Earth and Environment Postdoc Sven Holbik (center, blue shirt) and a SE GSA attendee discuss how to acquire an SEM image using remote operation of the EAE scanning electron microscope.



USF Professor Jeffrey Ryan (center and above left) helps attendees acquire a chemical image (right) and the energy dispersive spectrum (left) of a specimen in the EAE electronprobe microanalyzer at FIU.