Dr. Sherry Southerland has been a part of the Florida State University (FSU) family for 16 years. She is the director of the School of Teacher Education, professor of Science Education, and serves as the codirector of FSU-Teach. She earned her Ph.D. in curriculum and instruction majoring in science education and evolution biology from Louisiana State University. She received her M.S. in invertebrate physiology from Auburn University where she also received her B.S. in biology.

Southerland has many years of teaching experience in science education at both the K-12 and postsecondary levels. She was a biology instructor at Southern University and A&M College as well as a high school science teacher in Louisiana. But before she entered the education profession, Southerland was a forensic chemist. A natural-born educator, her favorite part of the job was to be able to testify on witness stands to educate others on how scientific materials worked.

Southerland’s research interests focus on the identification of the factors that influence the development of science proficiency for all students with a particular emphasis on students traditionally underserved in science classrooms. She recognizes that proficiency involves the ability to apply knowledge, practices, and patterns of reasoning to allow the learner to make sense of phenomena in their everyday. One branch of her research agenda involves the study of the development of students’ sense-making and affect related to science. The second branch involves the examination of ambitious science teaching practices and teacher moves that best support that development for a wide range of student learners. The third branch of her research agenda involves the examination of factors that influence teacher learning, particularly as it relates to their assumptions about the capabilities of their students and how those capabilities may shape the effectiveness of ambitious science teaching practices.

Southerland also participates in professional activities in relation to science education. She currently mentors 15 graduate students, serves as a journal editor and is working on four active grants. Her favorite professional activities revolve around her grants. She currently has a teaching grant that involves FSU-Teach and the Noyce Program. This grant focuses on assisting teachers in high-need settings to better their skills in math and science.

Her goal for students in the online C&I program is for them to be able to gain responsibility in their discipline and to their students. Teaching done well is the hardest thing that can be done. She hopes that students will not just get a degree, but reflect on teaching and examine what they do and all the possibilities that can be done with their education.
Ruth Bickel was born in Germany, but currently resides in Tallahassee, Florida, with her husband and two children. After attending two years at North Florida Community College in Madison, Florida, she joined and served eight years in the military. She is completing her master’s in C&I in science education. She currently teaches 8th grade physical science and high school integrated science with an emphasis in forensics at Florida State University Schools (Florida High). She is a sponsor of the Military Science Club and a co-sponsor of the National Junior Honor Society.

As a current science teacher whose undergraduate degree is in social science education, she felt that obtaining her master’s degree online would provide her with a stronger foundation that will allow her to provide the best possible curriculum and instruction to her current and future students. She has found the online program to be convenient, as she can be in the program and continue to be a teacher at the same time.

Although personally meeting and interacting with professors and classmates is difficult, Bickel believes that organization and time management is key and sets aside each day to work on assignments. Since the majority of students in the program are teaching and taking classes, she says that waiting to complete assignments on the weekend or the week an assignment is due is not the best idea.

She also suggests that you communicate with your professors and classmates. Since the classes are online and information can be misunderstood or misinterpreted, it’s important that you ask questions; the professors are always helpful and so are your classmates.

Lastly, she recommends that you find a mentor or colleague with whom you can collaborate so that you are not alone in the process. “Don’t be afraid to ask for help or advice,” said Bickel. “Students who have families must know that graduate school comes with sacrifice. Family vacations and other activities have to be postponed, but this journey is an amazing one!” The instructional information and knowledge that one gains from this program is highly engaging and applicable for today’s educator. “I could have not asked for better professors and classmates.”
National Organizations for Science Education

National Science Teacher Association  
www.nsta.org  
The NSTA provides resources for excellence in teaching, learning, and professional development.

National Science Foundation  
www.nsf.gov  
NSF supports basic research and education in all the non-medical fields of science and engineering.

American Educational Research Association  
www.aera.net  
AERA provides knowledge about education, scholarly inquiry related to education, and the use of research.