Cultivating greatness and success among our students since 2006

Interested in the ESED Graduate Certificate?

Contact student services coordinator Barbara Smith (esegradinquiries@clemson.edu) for more information about the program and details about upcoming information sessions.

Sirrine Hall Suite 262
Clemson, SC 29634
864-656-2031
esegradinquiries@clemson.edu
http://www.clemson.edu/cecas/departments/ese/
The graduate certificate is open to any PhD student in science (e.g., chemistry, physics, geosciences, biology), engineering (e.g., industrial, chemical, mechanical, electrical), or mathematics. The certificate requires 11 credit hours of coursework that equips the students to teach or provide programming in higher education settings from two-year community college, four-year colleges or universities, and research universities. The certificate provides an advantage that PhD students in the STEM disciplines at most other universities do not have. The ESED certificate gives Clemson graduates a competitive edge.

**TOTAL CREDIT HOURS: 11**

**Recommended Sequence of Courses**

- **Seminar (1 credit)**
  - ESED 8000 Seminar in Engineering, Science and Mathematics Education

- **Pedagogy (3 credits)**
  - ESED 8200 Teaching Undergraduate Engineering
  - ESED 8210 Teaching Undergraduate Science

- **Research Methods (3 credits)**
  - ESED 8720 Action Research in Engineering, Science and Mathematics

- **Professional Preparation (3 credits)**
  - ESED 8240 Teaching Post-secondary STEM Through E-Learning
  - ESED 8250 Student Strategies in Engineering, Science and Mathematics Education
  - ESED 8300 Professional STEM Communication
  - ESED 8880 Preparing for the Professoriate

- **Practicum (1 credit hour)**
  - ESED 8610 Practicum in Engineering, Science and Mathematics Education

**About the ESED Certificate Program**

**OUR MISSION**
To prepare doctoral students who will inspire the next generation of engineers, scientists, and mathematicians by creating and communicating new knowledge through robust research in education and teaching at the foundational levels of the STEM disciplines.

**OUR VISION**
The graduate certificate is open to any PhD student in science (e.g., chemistry, physics, geosciences, biology), engineering (e.g., industrial, chemical, mechanical, electrical), or mathematics. The certificate requires 11 credit hours of coursework that equips the students to teach or provide programming in higher education settings from two-year community college, four-year colleges or universities, and research universities. The certificate provides an advantage that PhD students in the STEM disciplines at most other universities do not have. The ESED certificate gives Clemson graduates a competitive edge.

**OUR IMPACT**
ESED, which was founded in 2006, is a unique program found nowhere else. No other university offers graduate work in a department that combines engineering, science, and mathematics education research. Alumni who have the certificate are in top-tier positions at colleges and universities throughout the US.