

College of Education

Mathematics and Science in Education

Student Learning Outcomes

Mission

The mission of the Ph.D. in Mathematics and Science Education is to develop scholars and educators capable of making important contributions to the research base, professional context, and learning environments related to mathematics, science, and STEM education.

Student Learning Outcomes

The following student learning outcomes have been established for the program:

1. Program student locates, analyzes, and synthesizes research literature, and applies that synthesis to problems of practice.
2. Program student effectively communicates scholarly work through written, oral, and/or alternate formats.
3. Program student skillfully inquires into areas of program-related interest.
4. Program student develops scholarly habits of curiosity, inquiry, skepticism, and data-based decision making.
5. Program student expresses value of diversity and demonstrates this value in pedagogical and inquiry endeavors.
6. Program student conducts and disseminates original scholarship that demonstrates acquisition and application of new knowledge and theory.
7. Program student shows potential as an emerging expert in her/his area of study.

In addition, we identify the following goals for our graduates:

- An emergent research program in mathematics, science, or STEM education
- Knowledge of key aspects of the field (main journals, conferences, leading researchers, professional norms of the field)
- Awareness of key funding sources
- Ability to teach content methods and other preservice courses
- Ability to teach masters and doctoral level courses in mathematics, science, or STEM education
- Knowledge and awareness to pursue other occupations in STEM education outside of university settings