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Science Education (MA)

Introduction

The United States faces a critical shortage of qualified science teachers, particularly within diverse communities. The Science Education program at DelawareState addresses both of these needs. Students benefit from small classes, and they gain valuable hands-on teaching experience in real-world schools. Since science education is a critical needs field with teacher shortages nationwide, program completers have good prospects for employment.

Professional Preparation

The Science Education program is NCATE accredited and is recognized by the National Science Teachers? Association (NSTA). It prepares graduates to teach physical and earth sciences at the middle school and high school levels. All graduates become licensed teachers in the state ofDelaware.

Students will develop professional teaching skills in:

- core subjects such as physics, biology, chemistry, and astronomy
- cutting-edge scientific material such as climate change and environmental issues
- the use of advanced technology in the classroom
- lesson planning
- assessment

Faculty

DelawareState?s diverse faculty come from a wide range of ethnic and national backgrounds, making them especially qualified to prepare teachers for multicultural classrooms. They have many years of direct teaching experience and have been involved in developing statewide science curriculum and professional development standards for teachers. Above all, science education faculty act as mentors, taking a personal interest in students to help them meet challenges in the classroom, the professional world, and in life.

Research and Experience

Students as part of the science education program must complete a short-term content-specific research project. In addition, they participate in direct classroom observations and a capstone student teaching experience. The process begins in the sophomore year, with more than 20 hours of early field experience (EFE), and concludes with a full semester of student-teaching placement during the senior year.

Two required courses in the Master?s program ? Research Experience in Science, and Analysis of Research in Teaching Science ? provide participants with first-hand scientific research experience, with emphasis on research applications for the classroom. In addition, all Master?s degree candidates must complete a Capstone project, which can take one of the following two forms:

Research Thesis: Students must conduct an empirical research study, develop and write a thesis, and defend it before a faculty committee.

Scholarly research and multimedia presentation: Students must write a scholarly research paper and deliver the contents in a multimedia presentation to a faculty committee.

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