

# Science Education, Secondary

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The degree of Bachelor of Science in Science Education may be obtained by selecting one of 5 concentrations offered by the Department of STEM Education in the College of Education: Secondary Science Physics, Secondary Science Biology, Secondary Science Earth Sciences, Secondary Science Chemistry, Middle Grades Science. There is a crucial need for experienced classroom science teachers and double majoring is a path to earn a degree that can be used to teach either middle or high school sciences. The Science Education degree program prepares teacher-leaders to have a deep understanding of the sciences they will teach as well as the ability to demonstrate different pedagogical strategies in the classroom. Students complete courses focused on science education, obtain relevant pedagogical experiences while immersed in rich field experiences in science classrooms, and emphasize teaching science with technology. Upon successful completion of the program, students are recommended for an initial North Carolina teaching license in grades 6-8 or 9-12 sciences. They will be able to seek employment opportunities in education and make a positive difference in their communities.

The goals and objectives of the BS degree in Science Education are:

- To enable and ensure that each prospective teacher enriches his/her life through a comprehensive university education
- To develop the professional qualities and academic background needed to teach science to all student levels in the grade for which the teacher is certified
- To develop a general knowledge foundation upon which specialized professional knowledge is built, and upon which a well-rounded university education is the base

Coursework for the degree is divided into four types of knowledge:

- General pedagogical knowledge — the nature of learners and general principles of instruction
- Content-area knowledge — knowledge of the natural sciences
- Pedagogical content knowledge — principles of curriculum, instruction and assessment directly related to the natural sciences
- Context knowledge — understanding the culture of the school, community and society in which educational institutions exist and function

Students in this program also have the opportunity to participate in:

- Undergraduate research
- The student chapter of the NC Science Teachers Association (NCSTA), and other high impact experiences such as Passport to Success, SAY Village, and study abroad
- Outreach and tutoring in local schools

For more information about this program, visit our website (<https://ced.ncsu.edu/undergraduate/programs/science-education-middle-school-or-secondary/>).

## Department of STEM Education

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## Faculty