MASTER OF NATURAL SCIENCES EDUCATION, PLAN C (M.N.S.E.)

The Master of Natural Sciences Education, Plan C (M.N.S.E.) is an online degree program (https://www.online.colostate.edu/degrees/natural-sciences-education/) designed for:

- Current science teachers with a desire to learn new pedagogical techniques that contribute to student learning and engagement;
- Current science teachers who want the flexibility to teach other natural science disciplines by enhancing their knowledge in biology, chemistry, physics, Earth science, and environmental science;
- Current non-science teachers with a natural science undergraduate degree who would like to pursue science teaching positions;
- Current non-science teachers with a related undergraduate degree (computer science, agriculture, engineering) and a strong science background who would like to pursue science teaching positions; and,
- Individuals with strong science backgrounds and past or current experience in educational settings who would like to earn a master's degree in science education and separately pursue a teaching certification.

Students interested in graduate work should refer to the Graduate and Professional Bulletin (http://catalog.colostate.edu/general-catalog/graduate-bulletin/).

Program Learning Objectives

Successful students will:

1. Understand natural science knowledge in the content areas of biology, chemistry, Earth science, physics, and environmental science;
2. Apply science content and pedagogy to the teaching of middle and high school students;
3. Create secondary science curricula that informs curriculum development with science theory and practice, instructional theory, and metrics for learning effectiveness;
4. Apply hands-on teaching tools, methods, and lesson enhancements that engage students and facilitate learning.

Institutional Learning Objectives

Program Learning Objectives align with and support the four of the five University's Institutional Learning Objectives, which are Creativity, Reasoning, Communication, and Collaboration:

1. Creativity: Program Learning Objectives 2 and 3 creatively apply their expertise to developing curriculum and pedagogy to foster learning and engagement.
2. Reasoning: Program Learning Objectives 1 and 4 apply science knowledge and practice that fosters critical thinking.
3. Communication: Program Learning Objectives 2, 3, and 4 develop written communication skills for teaching middle and high school students from diverse cultures and identities.
4. Collaboration: Program Learning Objectives 1, 3 and 4 support stewardship of environmental resources. Courses in the MNSE curriculum address the impacts of climate change and habitat destruction on ecosystems. Students develop professional skills to solve problems in a societal context.