



Nevada STEM Advisory Council List of Recommended STEM Programs February 2023

NATIONAL CERTIFICATE FOR STEM TEACHING (NCST)

PROGRAM OVERVIEW

When STEM instructional strategies are used across content areas and grade levels, student engagement with 21st century skills and relevant learning increases. NCST participants will analyze the 15 STEM Teacher Actions, including strategies such as building scientific literacy, helping students reframe failure, probing for misconceptions, and using authentic assessment. The 15 STEM Teacher Actions are strategies that benefit every learner in all content areas. NCST participants develop a portfolio of evidence that demonstrates understanding of the 15 STEM Teacher Actions essential to teaching and learning. This is achieved by completing observations, collecting and analyzing evidence of instructional effectiveness, and reflecting on opportunities for instructional improvement. Participants receive feedback from a coach on every portfolio submission. By intentionally implementing the 15 STEM Teacher Actions into instruction, NCST graduates promote a STEM culture among their peers and way of thinking for their students.

TARGET GRADES

NCST is designed to be applicable and relevant to all grade levels. PK-16 Educators have benefited from NCST.

A UNIQUE OR SPECIAL FOCUS OF THE PROGRAM

NCST is an asynchronous, competency based, coach supported professional learning experience anchored to a cycle of observation, identifying evidence of effectiveness, and crafting recommendations for improvement on 38 instructional strategies.

THE PROGRAM'S IMPACT ON STUDENTS

Upon completion, 95% of NCST graduates state the NCST improved their STEM instruction, over 94% reported that they have a better understanding of STEM pedagogy, and over 90% reported that they are more confident teaching integrated STEM lessons.

SPECIFIC SKILLS STUDENTS WILL LEARN

NCST develops an understanding of the 15 STEM Teacher Actions organized into three Domains, 15 Actions, and 38 Indicators:

- *Domain 1 - Creating an Environment for Learning; and associated Actions and Indicators;;*
- *Domain 2 - Building Scientific Understanding; and associated Actions and Indicators;*
- *Domain 3 - Engaging Students in Scientific and Engineering Practices; and associated Actions and Indicators.*

RESOURCES PROVIDED TO EDUCATORS

NCST includes: Virtual coaching; Ongoing feedback; NISE Professional Learning Portal; Interactive content; Templates; STEM Teacher Action Protocol; Digital portfolio; Digital Badge; Transcript; and Options for purchasing graduate credits and pursuing STEM graduate degrees.

WEBSITE

www.nise.institute

CONTACT INFORMATION

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