

Abstract Submitted
for the PHYSTC20 Meeting of
The American Physical Society

Online graduate certificate program in physics education for in-service teachers CHRIS MOORE, University of Nebraska Omaha — We describe an online 18 credit hour graduate certificate program in physics education that ties into the existing M.S. in Secondary Education at the University of Nebraska Omaha. Teaching physical science at the secondary-level requires deep discipline-based understanding in combination with knowledge and practice in science education methods, and specific understanding of pedagogical content knowledge (PCK). The program was designed for in-service physics teachers, with coursework based on PCK learning modules developed for the PhysTEC program, combined with new content-focused modules and research experiences. The program provides a pathway for teachers to become qualified to teach dual-enrollment and AP physics courses, while providing learning experiences directly applicable to their own classrooms. We present the framework for the program's development, the coursework and sequence, and preliminary experiences from the program's first cohort.

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Date submitted: 14 Feb 2020

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