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Improving Written Communication Skills for Physics Majors<sup>1</sup> WILLIAM BRISCOE, CAROL HAYES, RACHEL RIEDNER, ALEXANDER VON DER HORST, GARY WHITE, George Washington Univ — Most physics majors enter the private sector after graduation, yet traditional physics programs are geared toward academic careers. The APS has promoted physics innovation and entrepreneurship (PIE) education requiring modifications to the core curriculum. We describe a collaboration between GW physics and writing faculty to address the issue that most physics departments are not teaching the disciplinary-based writing skills needed for the private sector, industry, or even academia. Physics faculty are supported by the university writing program in introducing genre concepts and writing skills into the curriculum, contending that these can and must be taught by physics faculty; improving communication improves the students' understanding of physics concepts. Curricular changes included genre instruction to develop the skills necessary to improve student writing within STEM genres. An investigation to measure the impact of the teaching of writing in physics and if teaching STEM genres improves writing and enables students to see themselves as scientists engaged in professional communication. Our presentation discusses how genre and audience build student engagement and disciplinary identity in physics, and how concepts from writing studies can transform the physics curriculum.

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