



Department of Physics and Astronomy  
FALL 2023 Colloquium Series

# “Reframing Physics Student Preparation: Supporting Conversation about Ethics, Science, and Society in the Classroom”

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Physics has greatly impacted society, both in solving problems and perpetuating harm, yet we rarely provide opportunities for physics students to grapple with their responsibilities to society. The absence of direct discussions about the intersections of science and society in classrooms can reinforce the idea that physics is purely objective and removed from societal impact or influence. This messaging can justify students’ disengagement from social responsibility, leave them unprepared to use ethical reasoning in their careers, and isolate students who feel commitment to their communities. At Texas State University, we designed and implemented units about ethics, science and society in three different classroom contexts: a modern physics course, an observational astrophysics course, and a multi-disciplinary course entirely focused on the topics. In these courses, we collected and analyzed video data and students’ written work to better understand how to best support them in building comfort, competence, nuance, and agency around complex ethical issues in physics. I will draw on my experiences as an instructor and researcher to highlight factors which encouraged and limited students’ engagement and growth, and discuss their implications for instruction.

**Thursday, November 16, 2023**

**4:00 - 5:20PM**

**MND1015**

*Open & Free to all students, faculty and public*