



# CREATE for STEM Institute

*welcomes*

## Dr. Troy Sadler

Thomas James Distinguished Professor of Experiential Learning  
University of North Carolina, School of Education

**OCTOBER 19, 2022, 12:00-1:00PM, 115 ERICKSON HALL**

Go to: <https://community.create4stem.msu.edu/node/543>  
for Zoom registration

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### **Socio-Scientific Issues based Teaching, Learning, and Assessment**

**Abstract:** Socio-scientific issues (SSI) are complex societal issues that relate to and/or depend on scientific ideas, principles, or data. Climate change and the global COVID pandemic are two of the most pressing SSI facing the world today. I will argue that modern STEM education should help students learn ideas and practices that better prepare them for engaging with and contributing solutions to these critical issues. I will further argue that if we accept this as a goal for STEM education, then we must create opportunities for learners to explore complex issues within STEM learning environments. The presentation will showcase a few projects that leverage SSI as focal issues for curricular units. Research associated with these projects will highlight teaching practices essential for SSI-based education and student learning outcomes. The presentation will also explore a new approach for assessing student practices particularly important for the negotiation of complex societal issues.



**Bio:** Troy Sadler is a professor of science education at the University of North Carolina at Chapel Hill School of Education and serves as the Thomas James Distinguished Professor of Experiential Learning. Sadler's research focuses on how students negotiate complex socio-scientific issues and how these issues may be used as contexts for science learning. Sadler's work has been funded by the National Science Foundation, the Institute of Education Sciences, the US Department of Education, the Howard Hughes Medical Institute as well as local foundations and state agencies. He is Co-Editor of the Journal of Research in Science Teaching, one of the world's leading journals for science education research. Prior to his work at UNC, Sadler was a science education faculty member at the University of Florida and the University of Missouri and served as the director of a STEM education research center.