



## Virtual Professional Development Opportunity

### Teaching Science through Issues to Increase Engagement, Meet the NGSS, and Prepare Citizens

Traditionally, the goal of science courses has been to teach students the important concepts in the discipline, often leaving students wondering about the relevance of the material to their lives (why do I need to know this?). By engaging students in relevant and current societal issues (e.g., climate change, the COVID-19 pandemic) or personal decisions (how much water should I drink in a day, why do I need to take all of my antibiotics), we give students a reason and a desire to learn scientific concepts.

At the same time that it increases student interest, the issues approach allows teachers to meet all three dimensions of the NGSS. Thoughtful choice of the issues explored in a course is all that is required to ensure coverage of the essential concepts in a discipline. The issues approach also prepares our students to use science in their everyday lives. Nationally, only 6% of high-school graduates go on to earn a bachelor's or higher in STEM and are employed as STEM professionals, yet all students need to incorporate high-quality scientific information into the decisions they make in their personal, professional, and civic lives. As 2020 demonstrated, all persons, not just practicing scientists, need a high-quality science education if they are to engage effectively with our most pressing societal issues, and the issues approach trains students to do just that.

At the conclusion of Teaching Science through Issues, you will have a thorough understanding of the issues approach and its benefits. You will identify an issue and the disciplinary content relevant to that issue for one of your classes, develop activities that connect the issue to NGSS standards and disciplinary content, and identify real-world scenarios to which students will apply the content knowledge related to the issue. You will have all of the necessary skills to implement the issues-based approach in your classes.

**Session Information:** Two 2-hour Zoom sessions, 3:00-5:00 pm Tuesday, April 14 & Friday, April 28, 2021

Instructor: Dr. Christopher Murphy is the Associate Provost for Curriculum and Liberal Learning and a Professor of Biology at The College of New Jersey. For over 20 years, Dr. Murphy has been using an issues approach to prepare science-proficient citizens (over 3,500!) He conducts research in both biology and college education.

**Application Information:** Submit this application to your PDSN Liaison by **3/15/21**. Please provide all of the requested information. Incomplete registration forms cannot be processed and will be returned.

NAME \_\_\_\_\_ E-MAIL \_\_\_\_\_

PDSN DISTRICT \_\_\_\_\_ GRADE LEVEL/CONTENT AREA \_\_\_\_\_

SCHOOL NAME/MAILING ADDRESS \_\_\_\_\_

CITY/STATE/ZIP CODE \_\_\_\_\_

Contact Carla Woodward for questions: [step@tcnj.edu](mailto:step@tcnj.edu) Confirmation will be sent to the registrant.

**PDSN Representatives:** By March 20, 2021, please send Carla Woodward your districts attendee information.

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