

## Course Description

# Safer engineering and CTE instruction: A national STEM education imperative. What the data tells us.

ISBN: 978-1-7366-120-2-6

Download Book: <https://www.iteea.org/Resources1507/Safety/SafetyReport.aspx#tabs>

### Overview:

For decades safety has been an integral component of STEM (science, technology, engineering, and mathematics) and CTE (career and technical education) instruction. Given today's litigious society, safety in P-12 STEM education and CTE has received greater attention. This in part is the result of the rise in popularity of collaborative learning environments like makerspaces and fabrication labs (Fab Labs). While safety has been recognized as critical to hands-on interdisciplinary teaching and learning experiences relative to STEM and CTE, there is limited research data to support appropriate recommendations for safety policies and practices.

This book utilizes findings from one of the most extensive national P-12 STEM and CTE safety research studies to date (718 teachers across 42 states) to provide practitioner friendly safety recommendations with suggested resources. The recommendations provide implications for state education departments, professional associations, school districts/boards of education, administrators, and teachers to make data informed decisions regarding safety policies and practices to enhance STEM and CTE instruction.

The course will utilize the book and the data to help teachers with a better understanding of what safety looks like in a modern CTE and Engineering classroom, but how to make the practical changes in a real way.

### Schedule

The class is asynchronous. You can read and work at your convenience. The group discussion on the 21<sup>st</sup> is to go over the course and is required. If there is a conflict, please contact me to make other arrangements.

**Section 1: Introduction into Student Safety** September 21<sup>st</sup>, 2022

The reasoning behind looking deeper into classroom safety.

Office Hours/Mandatory Group Discussion 5-6pm Eastern

**Section 2: Teacher and Student Responsibility** October 19<sup>th</sup>, 2022

Developing understanding into who has responsibility.

Office Hours/Optional Group Discussion 5-6pm Eastern

**Section 3: Accountability Breakdown** November 16<sup>th</sup>, 2022

Seeing the big picture of what can go wrong supported by the data.

Office Hours/Optional Group Discussion 5-6pm Eastern

**Section 4: Working on Safety**

December 21st, 2022

Develop meaningful strategies to build a safer classroom and practices.

Office Hours/Optional Group Discussion 5-6pm Eastern

**Section 5: The Final Result**

January 18<sup>th</sup>, 2023

Completing the mission of learning in effective means while showing how to be responsible.

Office Hours/Optional Group Discussion 5-6pm Eastern

**Review/Completion:**

February 15<sup>th</sup>, 2023

Office Hours/Optional Group Discussion 5-6pm Eastern

**All section course work is due before the next section starts**