



PROGRAM for NANO-SAFETY

The **PROGRAM for NANO-SAFETY**, a NANOMATERIALS APPLICATION CENTER at Texas State University-San Marcos [**NAC**] program, is a multi-institutional, collaborative effort addressing issues to ensure that the insertion of nanotechnology will be a boon rather than a bane to society. The potential of nanotechnology require a systematic approach to understanding the interrelationship of the positive and negative consequences of any application.

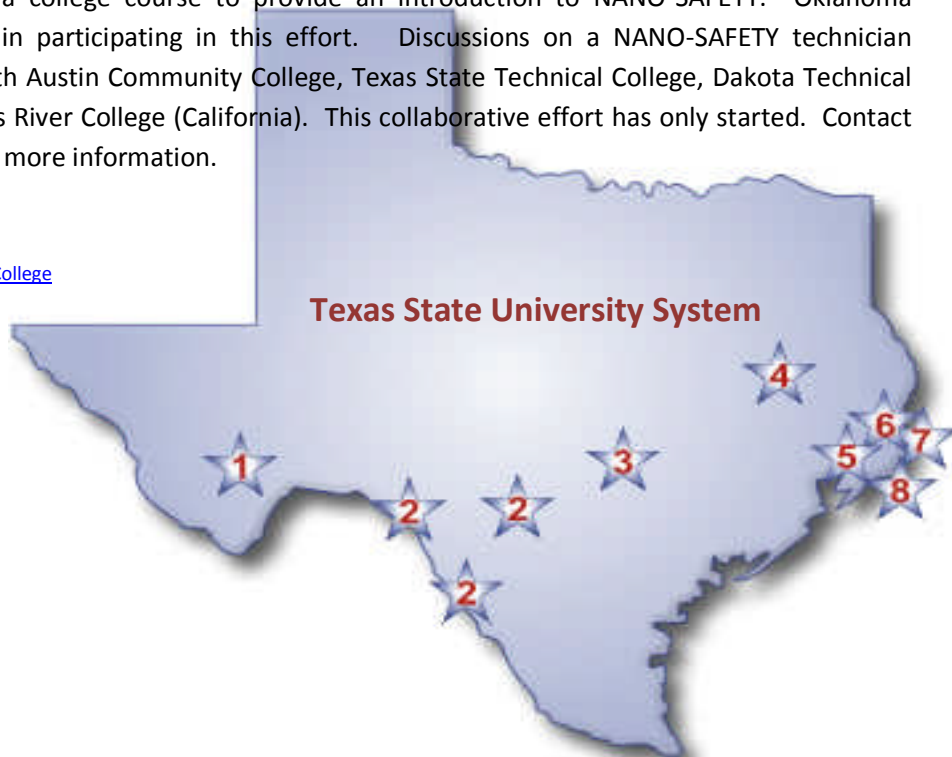
Safety – paramount in the workplace and the environment—is especially important for developments in nanotechnology, in which case material properties may be completely unknown. NANO-SAFETY requires many things: knowledge of effects, understanding of particle behavior, toxic effects depending on the application, residual impact on the environment, etc. The areas of understanding can be characterized in a number of categories, which include: **1) Material Properties; 2) Impact on People and the Environment; 3) Handling of Nanomaterials; and 4) Business Focus.**

The underlying elements of this effort require research on nanomaterials and their impact on people and the environment. As the understanding of the effects of nanomaterials increases, the training of technical personnel needs to evolve to ensure an understanding of how to evaluate the latest advances in nanotechnology methodologies and ensure the incorporation into everyday activities.

Research – is the key to an understanding of the unique properties of nanomaterials and the impact of these properties. Collaborative efforts involve universities, research institutes, and companies. Currently, there are research efforts involving Lamar University and Texas State University, the University of North Texas and Texas State, along with discussions for collaborative research between Rice University and Texas State, University of Texas Dallas and Texas State, and Shimane University (Japan) and Texas State. The efforts of **nanoTox, Inc.**, an **NAC** member, to establish the methodologies to quantify the critical results of testing are key to ensuring future safety efforts.

Education – is a must to provide an adequately trained workforce. Sam Houston State University and Texas State are working on developing a college course to provide an introduction to NANO-SAFETY. Oklahoma University has expressed interest in participating in this effort. Discussions on a NANO-SAFETY technician education program are ongoing with Austin Community College, Texas State Technical College, Dakota Technical College (Minnesota), and Cosumnes River College (California). This collaborative effort has only started. Contact Dr. Walt Trybula¹, Director **NAC**, for more information.

1. [Sul Ross State University](#)
2. [Sul Ross State University-Rio Grande College](#)
3. [Texas State University-San Marcos](#)
4. [Sam Houston State University](#)
5. [Lamar University](#)
6. [Lamar Institute of Technology](#)
7. [Lamar State College-Orange](#)
8. [Lamar State College-Port Arthur](#)



¹512.245.6062 (office)
email w.trybula@txstate.edu