**The Virgin Islands Institute for STEM Education Research and Practice (VI-ISERP)** is a vibrant intellectual hub that fosters strategic alliances for research, networking, and innovation in STEM (Science, Technology, Engineering, & Mathematics) education in the Virgin Islands and the Caribbean. VI-ISERP is a STEM community dedicated to developing and implementing research-based best practices in teacher preparation and training, student learning, and workforce development in STEM fields through collaboration among university faculty, K-12 educators, government agencies and industry. VI-ISERP is a program of the Virgin Islands Established Program to Stimulate Competitive Research (VI-EPSCoR), based at the University of the Virgin Islands (UVI).

VI-EPSCoR's workforce development area is dedicated to supporting VI-ISERP and its mission. The Institute fosters a cohesive research-based strategy for continued improvement in STEM education in the Territory. The long-term goal of the workforce development area is to improve the quantitative and scientific skills in the USVI workforce to strengthen economic competitiveness in STEM fields. The short-term goal is to significantly improve STEM education in the Territory at the 6-12 and University levels. Improved STEM education leads to a workforce that is better prepared to train for and work in STEM-related careers. VI-ISERP provides a collaborative infrastructure for STEM research.

**Areas of Focus:**

The vulnerability of the USVI is tied to the tremendous need to develop a large, diverse, highly qualified scientific workforce. VI-ISERP coordinates workforce development efforts focusing on STEM Education at the University level and in the Territorial middle and high schools. The strategy outlined to accomplish these goals is detailed below in four major areas.

***1. Transformation of 6-12 STEM Education in the Territory.*** VI-ISERP supports the [VI Department of Education](http://www.vide.vi) (VIDoE) in its efforts to implement [Common Core State Standards](http://www.corestandards.org) (CCSS) and [Next Generation Science Standards](http://www.nextgenscience.org) (NGSS) into the curriculum of all ten middle and high schools in the Territory. At the heart of this effort are the Professional Learning Communities (PLCs) which support research-based pedagogical approaches and techniques emphasizing inquiry-based learning in support of NGSS and CCSS. This is realized through summer institutes and academic-year activities. Local STEM experts support teachers as PLCs serve as a platform for reflection on practices.

***2. Integration of research into the undergraduate STEM curriculum at UVI.***VI-ISERP strives to facilitate integration of authentic research and active learning in the undergraduate STEM curriculum at UVI. Researchers and faculty work together to bring specific research projects into the curriculum. Well-designed assessment plans measure students' abilities to think scientifically, formulate hypotheses and design experiments. Introductory Chemistry labs will be used as the focus for this work.

***3. Mentoring training.*** All faculty, postdoctoral fellows and graduate students involved in VI-EPSCoR funded mentoring will complete mentor training annually.

***4. STEM Education research.***UVI faculty and their collaborators are funded as they implement education research. This research is infused with VI-EPSCoR-related research on coral reefs, marine debris, lionfish, and water quality. University scientists working in these areas are active participants in these projects.