

Vision Statement

Our vision is of teachers and learners at all levels who are excited, actively engaged, motivated, and challenged by complex, interdisciplinary issues that involve the sciences, mathematics, engineering, and technology, and that matter for the long term well-being of our planet and its people.

Such learners become the citizens of our society who value these disciplines both as an exciting venture of the human mind and for their essential role in preparing them to address the urgent scientific, social, and economic challenges facing our planet and its inhabitants.

Necessary Conditions for Achieving Our Vision

1. Profound changes in the objectives, content, and methods of science, technology, engineering, and mathematics (STEM) education at every educational level.
2. Collaboration within and across disciplines, and among colleagues within institutions, in rethinking the STEM curriculum to ensure that students explore the concepts they need to address real world problems, and learn to think about and act from their knowledge in linked, interconnected ways.
3. Profound shifts in the knowledge base, practices, and understanding of the teaching role among teachers and faculty, and, thus in their professional development.
4. Integration of pedagogies and assessment methods shown to be effective for student learning, capacity building, and motivation.
5. Changes in the rewards and incentives structure of our educational institutions.
6. Mobilization of knowledge and resources in ways that transcend traditional relationships and methods.
7. A willingness to rethink the values embedded in our education system.
8. Greater interaction between K-12 and postsecondary sectors with respect to science and math education.