



PROJECT KALEIDOSCOPE

Advancing what works in undergraduate STEM education

PKAL 2.0 Mission, Vision and Goals

January 28, 2012

Mission

PKAL's mission is to be a national leader in catalyzing the efforts of people, institutions, organizations and networks to move from analysis to action in significantly improving undergraduate student learning and achievement in STEM (science, technology, engineering and mathematics) in preparation for careers and participation in this increasingly complex, globally-interdependent and technologically-driven world.

Vision

PKAL's vision is to significantly enhance the capacity of America's two- and four-year colleges and universities to graduate more *highly-qualified* and *liberally-educated* STEM professionals, including K-16 educators, and to promote a higher level of *scientific literacy and reasoning* among all college graduates, with particular attention to broadening participation of underrepresented groups in STEM.

Goal

Regionally and nationally, PKAL will serve as the nexus of an interconnected and multidisciplinary community - bringing ideas, people, evidence, strategies and resources together – to more systemically lead change in undergraduate education to achieve PKAL's mission and vision.

Strategies

1. **Promote** the development and wider use of evidence-based teaching, learning and authentic assessment practices that engage students in the active pursuit of learning through high impact experiences; **advance** the critical role of STEM in general education, liberal education, civic education and global education with a focus on promoting inclusive excellence and engaging diversity; **advocate** the importance of integrative, interdisciplinary and state-of-the-art undergraduate STEM education.

Actions:

- Provide models and frameworks for advancing, scaling and sustaining STEM reform, in both general education and the major
- Lead national initiatives and projects
- Organize annual national STEM education conference
- Inform and shape the national STEM education conversation using electronic and social media resources
- Develop new and highlight existing educational resources, tools and best practices
- Disseminate resources, tools and best practices using PKAL's electronic resources, reports and other publications, and by organizing workshops and sessions at regional and national conferences
- Foster and support regional STEM networks that engage graduate students, postdocs, faculty and administrators
- Form partnerships with research centers and scholars in STEM education



2. Build individual and organizational capacity to lead change in STEM education.

Actions:

- Build networks of leaders in STEM higher education in order to advance, scale and sustain STEM reform
- Offer leadership development institutes and workshops for STEM faculty, chairs and deans
- Develop new and highlight existing leadership resources, tools and best practices
- Disseminate leadership resources, tools and best practices using PKAL's electronic resources, reports and other publications, and by organizing workshops and sessions at regional and national conferences
- Form strategic partnerships and collaborations

3. Engage the broader community of external stakeholders – professional and disciplinary societies, business and industry groups, accreditation organizations, educational associations, governmental agencies, philanthropic organizations - in achieving our mission.

Actions:

- Form strategic partnerships and collaborations
- Engage stakeholders in national initiatives and projects
- Convene external stakeholders to advance the dialog regarding STEM education
- Include stakeholders on the PKAL advisory board