2016 Transforming Undergraduate STEM Education:

Implications for 21st-Century Society

**AAC&U's Network for Academic Renewal and Project Kaleidoscope**

November 3, 2016 to November 5, 2016

Boston Park Plaza Hotel & Towers

50 Park Plaza

Boston, MA 02116

AAC&U and Project Kaleidoscope invite you to join with colleagues to share and examine evidence-based models, practices, and strategies to provide high-quality undergraduate STEM teaching and learning and increase the number of students majoring, completing baccalaureate degrees, and pursuing careers in STEM fields.   This year’s conference will deepen our understanding of “what works” in STEM higher education reform and provide attendees with the opportunity to rethink curricular designs and teaching approaches in ways that will maximize learning.

Cybersecurity, health disparities, competing global economies, sustainability, education, equity, and civil rights are some of the most significant issues challenging the quality of 21st-century life.  At the heart of these complex challenges lies the opportunity for creating important discoveries. Meeting these challenges, however, requires innovative hypotheses; sharing of ideas and resources across disciplinary domains; and inclusion of the broadest array of problem-solving perspectives and entrepreneurial actions. Moreover, those pursuing sophisticated solutions to 21st-century STEM challenges need more than mere knowledge acquisition; they also need  the capacity to apply  disciplinary-specific knowledge to solving the world’s most complicated problems in culturally nuanced contexts and the ability to effectively communicate the importance of these problems and solutions. This is the challenge of STEM undergraduate education in the 21st-century.

The goal of the *Transforming STEM Education 2016 conference* is to provide STEM and non-STEM faculty and administrators from a diverse range of institution types, with an opportunity to:

* examine ways in which STEM higher education can  encourage more students to select and persist in STEM majors;
* explore best practices for mentoring and training STEM students to develop the knowledge and skills necessary to connect their learning to real-world problems; and
* Identify institutional practices for integrating the values and traditions of STEM disciplines with other campus domains to fully capture the distinct characteristics and comprehensive nature of scientific solutions.

Conference sessions will also explore methods for designing, implementing, and assessing high-impact practices for undergraduate STEM teaching and learning; supporting, rewarding, and building the capacity of STEM faculty to meet the shifting demands of higher education; broadening participation in STEM; and understanding effective strategies for transforming institutional cultures for undergraduate STEM reform.