National Science Foundation
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Arlington, Virginia 22230

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Innovation through Institutional Integration (I^3)

No future **Innovation through Institutional Integration (I^3)** competition is planned at this time. NSF has granted approximately thirty awards associated with this activity (see http://nsf-i3.org). The projects are active and provide examples of effective practices and lessons learned.

Innovation through Institutional Integration (I^3) challenges faculty, administrators, and others in institutions to think strategically about the creative integration of awards. Creativity, connectivity, integration, and synergy are keys to innovation and to developing human and institutional capacity to full potential. In both research and education, it is the forging of new links between ideas or methodologies that were previously disparate that frequently paves the way for innovation. When institutions optimize the benefits to be derived from the creative integration of intellectual perspectives or different domains of work, they create important opportunities for making progress on some of the most important scientific, technological, and educational challenges of our time.

On individual campuses across the nation, for example, significant synergistic potential can be ignited when scholars and educators in diverse disciplines work together. Similarly, NSF awardees can harness new synergies by working together with other NSF-funded projects on their own campus or with other partners. When the results of these synergies are both compatible with and beneficial for the institution(s) involved, successful innovation can be created.

I^3 grant projects are aligned with and reside in nine Education and Human Resources (EHR) programs that advance I^3 goals:

Centers of Research Excellence in Science and Technology (CREST)
Research on Gender in Science and Engineering (GSE)
Historically Black Colleges and Universities Undergraduate Program (HBCU-UP)
Innovative Technology Experiences for Students and Teachers (ITEST)
Louis Stokes Alliances for Minority Participation (LSAMP)
Math and Science Partnership (MSP)
Robert Noyce Teacher Scholarship Program
Research in Disabilities Education (RDE)
Tribal Colleges and Universities Program (TCUP)

Past efforts at integration have shown that opportunities for synergy can be created most successfully when collaborative projects include:

- Clear support from senior administrators;
- A cogent plan of action that includes expectations and staff development;
- Open cross-institutional dialogue that is supported and encouraged;
- A common campus-wide vision and value system that stresses the importance of synergistic efforts;
- The formation of a campus network with a set of individuals who take ownership and provide leadership for the initiative.

The campus network is an important aspect of successful collaboration at every stage of development and is critical to the sustainability and enhancement of created partnerships as well as the institutionalization of new innovations. This network can (a) foster communication across the campus to encourage the formation and dissemination of new ideas, values, and learning; (b) serve as a source of leadership to promote and carry out integrative activities; and (c) develop and sustain existing connections while continually expanding collaborative efforts.

This activity has the following interrelated goals:

- Increase synergy and collaboration across NSF-funded projects and within/between institutions, towards an educational environment where artificial boundaries are significantly reduced and the student experience is more fully integrated;

- Expand and deepen the impact of NSF-funded projects and enhance their sustainability;

- Provide additional avenues to broaden participation through workforce development, especially for those underrepresented in Science, Technology, Engineering and Mathematics (STEM) research and education; attend to seamless transitions across critical educational junctures; and/or provide more effectively for a globally engaged workforce;

- Promote innovative programming, policies, and practices to encourage the integration of STEM research and education; and

- Encourage STEM educational or related research in domains that hold promise for promoting intra- or inter-institutional integration and broader impacts.

Projects facilitate either (a) inter-institutional or (b) intra-institutional efforts and are expected to incorporate a depth and quality of creative, coherent, and strategic actions that extend beyond commonplace approaches to normal institutional operations.

Using currently held active grants as a basis for the integration targeted in this activity, the **I^3** grantee focuses on achieving "value-added" outcomes in broadening participation, strengthened critical junctures in STEM student pathways, integration of research and education, achieving a globally engaged workforce, and/or research and evaluation. The strategies engaged in these projects that work successfully to achieve effective integration of multiple awards may pose as notable models for supporting synthesis at institutions not currently participating in **I^3**.

[list of **I^3** grant awards]

See the Innovation through Institutional Integration website at http://nsf-i3.org/.