Strategic Instructional Innovations Program

2017 Call for Proposals

College of Engineering
University of Illinois at Urbana-Champaign
16 January 2017

Goal

To accelerate the spread of best practices for teaching, develop new best practices, and reimagine what it means to educate our students. These efforts are successful when we teach like we do research: with creativity, collaboration, measurement, and continual improvement.

Synopsis of program

The Strategic Instructional Innovations Program (SIIP) is an effort to establish communities of practice to increase the impact of our educational initiatives. These communities of practice are intended to enable faculty to advance excellence in teaching methods and technologies through an engineering approach to innovation centered around prototyping, evidence-based decision making, learning from failures, and iteration.

This year, seventeen teams—over 80 faculty members—are participating in SIIP. They connect with each other to exchange and develop ideas, and new teams will benefit (and benefit from) this larger community. See current projects here.

New this year: The **SIIP Adaptation** track is for faculty wishing to collaborate with a current SIIP team to replicate an innovation in their own course setting. See separate RFP.

Important dates

- SIIP informational meeting: Thursday February 2, 10:30am - noon, 1005 Beckman
- Pre-proposals for new SIIP projects due: Wednesday March 1
- Full proposals for new SIIP projects due: Monday May 1
- SIIP continuation proposals and expense reports for existing SIIP projects due: Monday May 1

Description of SIIP funding tracks

In addition to the Adaptation track, there are two others (the same as last year). *We particularly encourage proposals that involve collaboration with faculty across campus.*

Startup: The Startup track is focused on bringing new ideas and faculty into the SIIP community and enabling current SIIP teams to create capacity for new efforts. The primary outcome of startup projects must be the creation of a faculty community that is invested in solving a particular problem in engineering education. Sample projects include pilots or proof-of-concept studies for new innovations, creating working groups to study certain challenges or opportunities, or creating a workshop/seminar series with external speakers to generate and

sustain interest in a relevant problem, opportunity, or innovation (e.g., teaching for student diversity). Current SIIP Start-up projects include a pilot course for teaching assistants and a study of undergraduate student writing needs. Startup proposals are for one-year, non-renewable funding, but may evolve into an Implementation and Exploration project.

Implementation and Exploration: This track brings research and design elements to educational initiatives. I&E proposals are for one year of funding and may be renewed for up to two additional years; they may also continue as SIIP-supported projects in perpetuity without funding, with a project consultant and assessment support.

Implementation-oriented proposals are focused on improving student outcomes such as increased learning, satisfaction, or retention. Successful proposals will demonstrate an awareness of evidence- based teaching methods or curriculum designs and will focus on translating these best practices to new courses and faculty. Past SIIP projects that would fit this track include introducing "flipped classroom" teaching methods into a large lecture course, integrating collaborative problem solving discussion sections into a course, or integrating i>clicker questions into lectures in multiple courses.

Exploration-oriented proposals are focused on pioneering new instructional methods, technologies, programs, or policies and sharing what is learned with other faculty. Successful proposals will seek to expand or revolutionize what it means to provide a world-class education to our students and conduct thoughtful evaluations of the innovation. Past SIIP projects that would fit this track include integrating design projects across the curriculum, designing a grand-challenge-inspired curriculum, and developing new online, adaptive-learning systems.

Who may submit proposals

Principal Innovators (PIs) for all proposals must be College of Engineering faculty members (tenure-track or specialized). Team members may be from any department on campus.

- Startup: A PI who has never been funded by SIIP before may submit a pre-proposal with or without co-PIs. During the pre-proposal phase, the PI will create a suitable team with input from AE3. Previously funded PIs must have a team of at least three PIs.

- Implementation & Exploration pre-proposals and full proposals must have at least three PIs, including at least one tenure-track faculty member.

SIIP administrative structure

1. SIIP teams will meet weekly as a community of practice. Faculty affiliates from AE3 will attend these meetings to provide advice and to connect teams to relevant resources.
2. Each project will undergo a review twice a year; renewed funding will be contingent upon acceptable reviews.
3. When relevant, AE3 will help interested teams identify opportunities to obtain external funding to supplement and extend SIIP funding, multiplying the college's investment.

Budget guidelines and rules

- Departmental contributions via matching funds and/or in-kind support are highly encouraged and should explicitly be listed in the budget.
- No more than $5000 for equipment.
- Requests for summer salary must include explicit descriptions of intended activities.
- Overhead should not be included in the budget.
- There is no explicit cap to proposals, but PIs should be mindful of the overall budget of SIIP and the number of projects we expect to fund.

Award process

1. Project identification: By March 1, departments will form a faculty team to initiate reforms and submit preliminary proposals. Department heads and potential PIs are encouraged to consult with AE3 staff, current SIIP teams, and others for ideas and direction. Proposals should describe, in approximately two pages, the problem, the proposed solution, and the potential impact of the innovation.

2. Pre-proposal process: Faculty teams will meet regularly with faculty and staff from AE3, for up to six weeks, to craft their preliminary proposals into high-quality full proposals that are likely to be funded. This work will include identifying literature, local resources, and evaluation measures that will inform the proposed project. The goal is to refine the preliminary proposals such that potential pitfalls in implementation can be avoided.

3. Final proposal submission: Full proposals must be submitted by May 1 under the signature of the department head, who will confirm support for the work. Proposals should consist of a project narrative (including work plan, at most 10 pages), list of references, biosketches of all participating faculty, and a one-year budget plan. Please indicate what form(s) of financial and in-kind support the department will provide for the proposed project. Such support is not required, but may strengthen the proposal. Examples of previous support include faculty teaching release time, additional TA support, and equipment and space resources.

4. Proposal evaluation: Start-up proposals will be evaluated based on their timeliness, strategic value, and scholarly rigor as well as the team's demonstrated commitment to creating a community of practice to implement and sustain efforts.

5. Implementation and Exploration proposals must develop an assessment and evaluation plan to demonstrate progress toward core project goals and demonstrates the collaborative buy-in, administrative support, and projected sustainability of efforts.

Please address questions and proposal submissions to Laura Hahn, Director, AE3 (Lhahn@illinois.edu).