Strategic Instructional Innovations Program
2019 Call for Proposals

College of Engineering
University of Illinois at Urbana-Champaign
January 11, 2019

Goal

To accelerate the spread of best practices for teaching, develop new best practices, and reimagine what it means to educate our undergraduate 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 within the College of Engineering to establish communities of practice and increase the impact of our undergraduate educational initiatives. These communities of practice are led by engineering faculty and involve collaboration to advance excellence in teaching methods and technologies. The projects take an engineering approach to education innovation centered around prototyping, evidence-based decision making, learning from failures, and iteration.

This year, fifteen teams—over 50 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.

We are open to your ideas for education innovation, including projects focused on the increasing on-campus student population, e.g., off-campus learning experiences, or technologies for teaching large classes. While such new ideas are suited for the SIIP Start-up and Implementation tracks, the SIIP Adaptation track is an ideal way to leverage or recast current SIIP projects into new contexts.

Important dates

• SIIP informational meeting: Thursday January 31, 10:00-11:30, 3269 Beckman
• Pre-proposals for new SIIP projects due: Friday March 1
• Full proposals for new SIIP projects due: Wednesday May 1
• SIIP continuation proposals and expense reports for existing SIIP projects due: Wednesday May 1

Description of SIIP funding tracks

Adaptation: In its third 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. Past SIIP Adaptation projects have included exam revision (with the Computer-Based Testing team) and student communication skill development (with the Engineers SPEAK team). See separate RFP.

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). Example 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. Assessment can be challenging, so in this track, a goal of SIIP is to help participants figure out how to do it well.

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 those 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.

Further example SIIP projects are available here:
2017-18 SIIP: http://bit.ly/2017-18SIIP
2018-19 SIIP: http://bit.ly/2018-19SIIP

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: Startup teams should have at least three faculty members. If needed, AE3 can help PIs who are new to SIIP assemble a team during the pre-proposal phase.

- Implementation & Exploration pre-proposals and full proposals must have at least three members, 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.
- Typically requested budget items include student (TA, RA, undergrad) support, software/equipment, and travel funds to present project findings.
- 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, interested faculty teams meet to initiate reforms and submit preliminary proposals. 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. Current Startup teams proposing to continue through the Implementation & Exploration track can submit a proposal directly without the pre-proposal process.

2. Pre-proposal process: Faculty teams will meet regularly with affiliates 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 (by clarifying expectations, ensuring team functionality, etc.). The role of the affiliates is to provide feedback on the proposal and connect the team with relevant resources.

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. Please also indicate whether the project has other funding (e.g., an external grant).

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

5. Proposal evaluation: Proposals will be evaluated based on their timeliness, strategic value, appropriateness of budget, and scholarly rigor – as well as the team's demonstrated commitment to creating a community of practice to implement and sustain efforts.

6. Approved teams will receive funding beginning on July 1.

SIIP renewals and close-outs for 2019-20

Teams in their **first or second year** are eligible to apply for further funding.
SIIP teams in their **third or fourth year** are welcome and encouraged to continue as a part of the SIIP community in perpetuity without funding; AE3 will provide a consultant and assessment support.
Current **Start-up teams** are eligible to submit a full proposal for Implementation & Exploration funding (no pre-proposal is required).

Based on your future plans, please submit the following **by May 1**:

	Current SIIP Year 1 or Year 2	Current SIIP Year 3 or Year 4+
Planning to continue in SIIP	o A brief summary of your progress this year o A "Best of" short paragraph, photo, or link that highlights a particularly positive outcome of your project o A list of any ways you have publicized your project (papers, faculty meetings, websites, etc.) o Revised project objectives o A timeline for next year o A proposed budget with justification, and a statement of any remaining funds from this year. Please also indicate whether the project has other funding (e.g., an external grant). o A description of ways your department is supporting your project	o A brief summary of your progress this year o A "Best of" short paragraph, photo, or link that highlights a particularly positive outcome of your project o A list of any ways you have publicized your project (papers, meetings, websites, etc.) o Revised project objectives o A timeline for next year o If applicable (and essential to your project), a proposal for using any remaining funds from this year o A description of ways your department is supporting your project
Not planning to continue in SIIP*	o A final report (goals met, outcomes achieved, total expenditures and remaining funds) o A "Best of" short paragraph, photo, or link that highlights a particularly positive outcome of your project o A list of any ways you have publicized your project (papers, faculty meetings, websites, etc.) o A description of ways your department has supported your project	o A final report (goals met, outcomes achieved, total expenditures and remaining funds) o A "Best of" short paragraph, photo, or link that highlights a particularly positive outcome of your project o A list of any ways you have publicized your project (papers, meetings, websites, etc.) o A description of ways your department has supported your project

*Please note that it is the practice of the College to pull back any remaining funds from discontinued projects.

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