Educational Innovation in the College of Engineering
Spring 2017
Request for Proposals

Deadline: 5:00 pm Wednesday, January 25, 2017

The Education Innovation Committee (EIC) invites high-impact, innovative proposals that improve the College of Engineering (COE) undergraduate student educational experience. Projects will be supported through gift and undergraduate differential tuition funds. The EIC is particularly interested in innovations related to the areas of priority below, but is open to compelling proposals that advance any aspect of the COE educational mission.

Specific areas of priority are:

- Encourage student innovation and entrepreneurship;
- Encourage educational experiences that cross traditional disciplinary and departmental boundaries; and
- Curriculum improvements that involve the Grainger Engineering Design Innovation Laboratory (makerspace) and/or Visualization studio (see page 3).

Successful proposals will be aligned with EIC goals, COE and campus goals, which include:

- Pervasive active learning using any appropriate evidence-based pedagogy; and
- Promoting retention and success of at-risk or underrepresented students.

Proposals may request funding for equipment from the Grainger gift that could be placed in the Grainger Engineering Design Innovation Laboratory when it opens in Fall 2017 or otherwise generally benefits the COE mission.

We anticipate funding up to seven awards. The COE will contribute an average of $30,000 per project. Additional one-to-one matching funds from departments (e.g., gift or differential tuition funds) are expected, but not required. Requests for more funding from the COE will be considered for projects that have proportionally greater impact.

Selection criteria include:

- *Alignment with EIC and COE priorities and goals;*
- *Use of best practices for teaching and learning;*
- *Likelihood of promoting out-of-the-gate success of the makerspace and/or visualization studio;*
- *Highest impact with available funds; and*
- *A demonstration of departmental commitment to sustainability of project outcomes.*

The EIC will review the proposals and make funding recommendations to Dean Robertson. Final decisions on funded projects are expected in March 2017.

Proposals must be received by 5:00 pm on Wednesday, January 25, 2017.

Proposal Submission

Proposals will be submitted through academic department offices. Each department should submit their two highest priority proposals involving one or more courses or other academic experiences. Proposals for cross-disciplinary activities may be in addition to the two proposals from participating departments.

Submit a single PDF file that includes all supporting documentation using the naming convention LEADPILASTNAME_EICRFP17.pdf by email to:
Barry Van Veen at: *bvanveen@wisc.edu*

Proposal Format and Organization

The Proposal should include the following:

1) Cover Page – project title, the departmental lead faculty name for the project (PI) and contact information (title, address, department or unit, telephone, and email). Below this information list all project collaborators and their primary department or unit.

2) Abstract – no more than 250 words. The abstract will be posted on the EIC web site if the project is selected for funding

3) Body of proposal – **no more than six single spaced pages** (8 1⁄2" X 11" with 11 point or larger font) that provide:
    a. A list of the courses and instructors involved;
    b. A statement of the motivation and goals for the project;
    c. A statement of how the project addresses the selection criteria and the number of students impacted;
    d. A description of the project approach, work plan, and roles of project personnel;
    e. A description of assessment, dissemination and sustainability of the project outcomes;
    f. A description of how the project will address retention of underrepresented and at-risk groups;
    g. A description of cooperative features and/or partnerships (if any);
    h. A description of any equipment requested and appropriate justification.

4) Budget for FY18 (July 2017–June 2018)
    a. *Budget* – Provide a budget using the format shown in the appendix of this solicitation. Budgets should not be for normal course offering expenses. Budgets may include travel if appropriately justified (e.g. attending ASEE).
        > ***IMPORTANT NOTE*: *Up to one month faculty or staff summer salary support will be considered with appropriate justification. There is no limit on the amount that can be requested for student support.***
    b. *Departmental Contribution* – Describe financial or in-kind support provided by the department(s) for the project. A 1-to-1 match is strongly encouraged.
    c. *Budget Justification* – Provide a brief justification for each item in the budget.
    d. *Project Schedule* – Funding may start at any time but budget expenditures should be completed by June 30, 2018.

5) Letter from department chair(s) describing commitment to sustainability of project outcomes.

6) Additional Documentation – Inclusion of additional relevant information is discouraged, but if the PI determines that such additional information is necessary, it is limited to a single page.

Reporting Requirements

1. A preliminary report on the status of the project will be due towards the end of the fall semester 2017.
2. A final report will be due on August 1, 2018.
3. Project leaders will deliver a presentation describing the work to either the EIC or the College of Engineering at some point in 2018.

Questions regarding this Request for Proposals may be directed to any member of the EIC:

Mike Arnold	MS&E	msarnold@wisc.edu
Naomi Chesler	BME	naomi.chesler@wisc.edu
Dante Fratta	CEE	fratta@wisc.edu
Dan Klingenberg	CBE	dan.klingenberg@wisc.edu
Wayne Pferdehirt	EPD	wayne.pferdehirt@wisc.edu
Heidi Ploeg	ME	ploeg@engr.wisc.edu
Barry Van Veen	ECE	bvanveen@wisc.edu (EIC Chair)
Jake Blanchard	COE	jake.blanchard@wisc.edu (ex-officio)

Other resources that may be helpful include Collaborative for Engineering Education and Teaching Effectiveness (Elizabeth Harris, ceete@engr.wisc.edu) and the COE Equity and Diversity Committee (Pascale Carayon, chair. See also Diversity in the Classroom).

Grainger Engineering Design Innovation Laboratory

The Grainger Engineering Design Innovation Laboratory is being designed to provide an accessible, safe, and broad opportunity for students to create prototypes and final products based on their engineering design ideas. Major capabilities will include 3D printing and scanning, electronics, including circuit board fabrication, and small machining. Students will use the facility for both curricular and extra-curricular activities. (For more information contact Jake Blanchard jake.blanchard@wisc.edu)

Visualization Studio

The "Visualization Studio" will be hosted in Rooms 101 and 105 of the Wendt Library starting in September of 2017. Room 105 will serve as a "Visualization-Enhanced Collaboration Space" hosting five or six groups of up to six students with each group of students clustering around a pod equipped with high-end touch screen monitors. The soundproof room will be equipped with high-end projectors and a large high-resolution wall monitor. Room 101 is the "Virtual Frontier Space", where students have access to visualization and virtual reality hardware and supporting software. In addition to high end projectors, a variety of 3D scanners, sensing devices, high-end cameras, touch-screen monitors, and virtual reality gear will be made available to allow students to investigate emerging technologies, understand their potential and limitations, and find out ways in which they can capitalize on new hardware trends in the visualization and graphics fields. (For more information contact Dan Negrut, CIC Chair negrut@wisc.edu)

Appendix: Budget Format

*** Up to one month of summer salary for faculty or staff may be requested, but will only be considered with appropriate justification ***

1. Senior Personnel
    *   Name....monthly rate....period....total
    *   Fringe benefits (40% of salary for faculty and staff)
    *   Subtotal

2. Other Personnel
    *   Other professionals (name....monthly rate....period....total)
    *   Fringe benefits (40% of salary for faculty and staff)
    *   Teaching Assistants (monthly rate....period....total)
    *   Project Assistants (monthly rate....period....total)
    *   Fringe benefits for TAs and PAs (25% of total salaries requested)
    *   Undergraduate students (hourly rate ....period....total)
    *   Fringe benefits for student hourlies (5% of salary requested)
    *   Subtotal

3. Other Direct Costs
    *   Materials and supplies
    *   Other services
    *   Tuition remission (applicable only for PAs)
    *   Subtotal

4. Total Direct Costs of Project (sum subtotals 1 through 3)

5. Equipment (type and cost)

6. Department Contribution to Direct Costs and Equipment

7. Total Requested COE Funds (sum subtotals 4 and 5; subtract 6)

Common Grad Student Title Guidelines in COE

Project Assistant: This title designated for graduate students enrolled in a UW System institution who are employed to assist with research, training, or other academic programs or projects at the UW-Madison.

Teaching Assistant: This title is appropriate for graduate students enrolled in a UW System institution who have been assigned teaching responsibilities in an instructional department under the supervision of an academic staff or faculty member.