Request for Proposals

Course Redesign Initiative to Support Teaching for Engaged Learning (CRISTEL)
McCormick Teaching Excellence Institute

Proposal deadline: March 15, 2023. Submission of a short letter of intent by March 1st to verify that the proposed course and pedagogy is eligible is strongly encouraged.

Synopsis: The McCormick Teaching Excellence Institute (MTEI) requests proposals for the Course Redesign Initiative to Support Teaching for Engaged Learning (CRISTEL) program. CRISTEL provides funding of up to $45,000 over a period of two years to redesign core engineering courses. Redesign projects must significantly increase the use of active learning or other research-based pedagogies that improve student engagement and learning.

Eligibility: Only core undergraduate courses that are degree requirements for a major in the College of Engineering are eligible. Preference is given to large-enrollment courses; courses at the first-year, sophomore, and junior levels; ENGRD and ENGRI courses; and/or courses required by the college of all majors. New or redesigned ENGRI courses that introduce students to more than one major are encouraged. Graduate and elective courses are not eligible.

Program Description

The goal of CRISTEL is to support redesign of critical courses in the undergraduate program to improve student learning, engagement, and overall experience. Redesign projects must be based on research-informed pedagogies and best practices. Examples include active learning, problem-based learning, case study discussions, groupwork projects, a flipped or partially flipped class model, or combinations of these and other approaches. Use of the pedagogy needs to be embedded throughout a course, not isolated to a single unit. Proposals based solely on passive learning, such as straight lecture, will not be considered.

Redesign projects must assess the impact on student learning. As part of the assessment, a redesigned course must be taught at least twice within the two-year project period. Instructors will gather feedback from the first offering, refine the redesign based on feedback, and teach the course a second time with the revised redesign. Awardees will submit a preliminary report to MTEI after the first offering of the redesigned course, and a final report after the second offering. The reports will present the findings of impact on student learning.

At the conclusion of a redesign project, awardees shall present the results of their redesign project at an MTEI-sponsored event, or at a departmental event such as a faculty meeting or seminar. Broad dissemination of results in a published paper or at a workshop is encouraged.

Redesign projects must be sustainable after the grant ends. A measure of success will be that the offering department accepts the redesign as the “new normal” for the course.

MTEI is available to consult with awardees at all stages of the redesign project, including planning, implementation, and assessment.
ALI and CRISTAL
Cornell University’s Active Learning Initiative (ALI) projects support departments redesigning several courses, whereas CRISTEL grants support a single, critical engineering course. CRISTEL proposals that leverage lessons learned from an ALI project are welcome.

Budgetary Information
A proposal may request funding up to $45,000 over two years. The number of grants awarded will depend on the quality of proposals and their proposed budgets. Funding may be used for many purposes, including:

- Summer salary.
- Funding TAs or student workers during a course offering or during the summer.
- Attendance at a nationally-recognized teaching workshop, such as the National Effective Teaching Institute (NETI).
- Purchasing supplies or equipment, provided that the course will be sustainable after the grant ends.
- Teaching relief, if allowed by the department(s) involved.

Proposal Requirements
Proposals should be 5–6 pages, plus a budget page. A proposal should provide the following information:

- A description of the current course (or the new course to be created).
- An explanation of the active learning or other research-based pedagogy being proposed, and a rationale for its inclusion in the specific course being redesigned.
- A description of the redesigned course highlighting proposed changes.
- A specification of what course materials will be created using the grant funding.
- A plan to assess the impact of the redesign project on student learning.
- A timeline for the redesign project. The timeline should identify when new course materials will be created, which two semesters the course will be offered, the faculty who will teach the course in each offering, and when the revision work will be accomplished between the two offerings.
- The venue at which the awardee plans to present the redesign project results.

Proposals must be accompanied by a letter of support by the department chair and DUS. That letter needs to commit to continuing successful aspects of the redesign project in future offerings of the course after the grant ends. Those offerings may be taught by different instructors.

If funding is requested for TAs, the proposal must detail the specific deliverables that will be assigned to TAs. Those deliverables could include content creation for lectures, discussion sections, or labs; development of assessments; or specific extra teaching duties that will be necessary during the two-year period and sustainable by the department after the grant ends. An educational plan for the TAs also needs to be identified. That plan should explain how the TAs will become proficient in the pedagogy being implemented in the redesign project. TAs are encouraged to take ENGRG 6780 Teaching Seminar to enhance their understanding and effort in the course redesign, or to participate in Engineering Learning Initiative’s Interactive Learning Collaborative.
Program Timeline

Pre-proposal planning assistance is available from MTEI by appointment now through the proposal due date.

- Project start date: June 1, 2023 or later.
- First offering of redesigned course: Fall 2023 or Spring 2024.
- Preliminary report (including preliminary assessment of impact on student learning) due: one month after grades due for first offering of course.
- Second, revised offering of redesigned course: Fall 2024 or Spring 2025.
- Final report (including final assessment of impact on student learning) due: one month after grades due for second offering of course.

Submission

Email your materials to Kathy Dimiduk, klc78@cornell.edu.