

Request for Applications: STEM Education Innovation and Excellence Award



Office of Research and Economic Development
University of Nebraska-Lincoln

Notice of Intent to Submit Deadline: December 14, 2015
Application Deadline: February 8, 2016

Introduction

The STEM Education Innovation and Excellence Award seed grant program is designed to help enhance the competitiveness of faculty submitting external grant proposals requesting significant funding in areas related to one or more of the thematic areas discussed during the [STEM Education Research Retreat](#) held at the University of Nebraska-Lincoln (UNL) on October 19, 2015. The retreat, which was organized by the Department of Chemistry; Center for Science, Mathematics, and Computer Education; NebraskaSCIENCE Program of Excellence; and Office of Research and Economic Development (ORED), identified three thematic areas for research collaboration and growth at UNL. These three thematic areas, which are detailed in the [retreat report](#), are:

- 1. Training STEM Educators:** This theme addresses the growing need to characterize key strategies and conditions to effectively train educators teaching STEM in formal and informal environments. It encompasses studying the impact of disciplines and environments on the nature of training required, identifying the knowledge and skills necessary for teaching and ways to develop them, and measuring the impact of training programs on instructional practices and educators' ways of thinking about teaching and learning.
- 2. Improving STEM Learning:** This theme emphasizes the nature and conditions of STEM learning, which is inherently multi-faceted. It encompasses learning outcomes attributed to individuals or groups, the factors that influence learning outcomes, and the design of effective learning environments for optimizing STEM learning outcomes.
- 3. Fostering Science/STEM Literacy:** This theme is focused on understanding the knowledge, skills, and competencies that all students need to negotiate and contribute to our global, 21st century society. This focus is inherently interdisciplinary, and programs designed to foster STEM literacy may occur in a variety of educational settings with learners of all ages, but they must emphasize "knowledge for use."

Award Amount and Project Scope

ORED expects to make at least one \$10,000 award for a 12-month project depending on the quality of applications submitted to this competition.

Eligibility

Tenured/tenure-track and research faculty at UNL may serve as the principal investigator (PI) on one proposal submitted to the STEM Education Innovation and Excellence Award program. Co-principal investigators (co-PIs) do not need to hold a tenured/tenure-track or research faculty position, and they may be affiliated with other institutions/organizations. There is no limit regarding the number of applications on which individuals may serve as co-PI.

Investigators with current external research funding will not be at a competitive disadvantage for funding through the STEM Education Innovation and Excellence Award program. However,

applications to the program *must* describe plans to support the development of new projects for which it is possible to secure a significant new external funding stream (e.g., an external award totaling \$1 million or more in total costs). The STEM Education Innovation and Excellence Award may not be used to support plans to further advance existing projects or initiatives.

Notice of Intent to Submit

Faculty that plan to submit a proposal to the STEM Education Innovation and Excellence Award program must provide notice of intent to submit by December 14, 2015. Notices of intent to submit will enable ORED to effectively plan for review of applications submitted to the program.

To provide notice of intent to submit, send an email to unlresearch@unl.edu. Include the text “STEM Education Award – Intent to Submit” in the subject line of the email. In the message, include the name, title, and affiliation for the PI and each co-PI; the title of the proposed project; and a two- or three-sentence summary description of the team’s vision for the project.

Proposal Requirements

To develop a STEM Education Innovation and Excellence Award proposal, prepare the following information in the order described below as a single PDF file:

- A letter of transmittal that includes the application title and the names and affiliations of all senior/key personnel.
- A project plan of no more than four pages that includes the following:
 - Brief project overview written in language accessible by non-experts (one-half page suggested)
 - A description of the opportunity or challenge and the thematic area(s) to which the proposed project responds, as well as the goal and objectives of the proposed project
 - Plans for preliminary study and/or data collection to enhance grant proposal competitiveness
 - Alignment with institutional strengths and relevant prior investment (e.g., personnel, facilities, equipment, etc.)
 - Discussion regarding the innovation associated with the proposed approach
 - Fit with federal research priorities and investment
 - Summary of relevant funding opportunities and a detailed proposal submission timeline (applicants should describe plans for preparing and submitting a proposal to at least one major external funding program within 18 months following the period of STEM Education Innovation and Excellence Award support)
 - Description of key personnel, their project role, and substantive contribution to the project.
- A list of references cited within the project plan that is no more than two pages in length.
- A detailed budget and budget justification of no more than two pages for funds requested from the STEM Education Innovation and Excellence Award program. Applicants should provide strong rationale for their budget request and describe how funds will be used to support preliminary study and/or data collection (e.g., graduate research assistant or postdoctoral research associate support, travel, etc.).

Funds may not be used for faculty summer salary or teaching release time, which may be provided by the PI’s/co-PI’s academic unit or college to strengthen institutional commitment to the proposed effort. Sub-awards are not allowed; however, external collaborators may invoice project-specific expenses.

Submission Process and Deadline

To submit a STEM Education Innovation and Excellence Award proposal, send a single PDF file as an email attachment to unlresearch@unl.edu by 5:00 p.m. CST on February 8, 2016. Include the text "STEM Education Award – Proposal" in the subject line of the email.

Selection Criteria and Review Process

Primary selection criteria for the STEM Education Innovation and Excellence Award will include:

- A clear fit between the proposed project and alignment with institutional and federal priorities for interdisciplinary research, including well-developed plans to submit at least one major external funding proposal.
- The level of innovation and the overall merit of the proposed project, and its potential for generating a significant level of new external funding.

Applications will be reviewed initially by senior research administrators at UNL. In addition, ORED may solicit additional internal and external reviews to aid in the decision-making process. The Vice Chancellor for Research and Economic Development will make the final selection. Award notification is expected to occur during February, 2016.

Additional Information

For additional information regarding the STEM Education Innovation and Excellence Award program, contact Nathan Meier, director of research strategy (402.472.3902 or nlm@unl.edu).