Thank you for your support of the Catalyzing Inclusive STEM Experience All Year Round (CISTEME365) grant proposal last summer. We are thrilled to announce that the National Science Foundation has approved our funding request. We are excited to get started this summer. We are writing to provide some program details and the application form for your school to be part of the 2019-20 cohort. To apply, you will need to form an IDEA team with 3 school participants as described below and to submit a participation letter signed by your principal and superintendent. Note that there will be future opportunities to apply for the 2020-21 and 2021-22 cohorts.

Page 2 is the project summary. In short, your participation looks like this:

- Identify an Inclusion, Diversity, Equity, and Access (IDEA) Team that consists of at least 1 counselor/academic advisor, at least 1 teacher, and one additional collaborating partner with an interest in improving school support systems for encouraging diverse youth to pursue STEM majors ($1,200 stipend for each team member)
- IDEA Team will be required to participate in a 2-week summer professional development at the University of Illinois (July 22, 2019 - August 2, 2019) followed by a full year of facilitated professional inquiry (approximately 40 hours) focused on improving STEM access and outcomes for traditionally underrepresented student populations (up to $3,500 in housing, meals, and travel covered per IDEA team). The summer institute and the school-year facilitated programs are led by researchers at the University of Illinois and at the National Alliance for Partnerships in Equity.
- During the summer professional development, IDEA teams will also learn about a curriculum that introduces engineering concepts to students through authentic, hands-on projects and activities. IDEA teams will launch a STEM club at their school and implement this curriculum and other relevant content (approximately 2-4 hours/week during the school year). The grant will pay for multi-purpose lab equipment and materials (valued at $2,500) as well as flexible funding of up to $1,500. IDEA teams will be supported throughout this implementation process by the engineering curriculum developers.
- Access to scholarships ear-marked for CISTEME365 qualifying students to attend a University of Illinois Worldwide Youth in Science and Engineering summer camp (each scholarship valued at approximately $1,000) or a University of Illinois Extension Illini Summer Academy (each scholarship valued at approximately $450)
- Schools agree to provide aggregate data to help measure program effectiveness that is not captured by the Illinois School Report Card, e.g., number of students taking each STEM class each semester broken down by grade level. Schools also commit to exploring their current practices and to implementing/institutionalizing best practices that emerge from the program.
- Students and IDEA Team members will be asked to participate in pre- and post-surveys and assessments, and in interviews and/or focus groups to help us identify areas for improvement and to determine the success and impact of the program. Participation in this research is voluntary; participants may opt out at any time without affecting their status in the program.

Please join us for a CISTEME365 information and Q&A webinar on Thursday April 11 at 3pm (join via Skype, Skype Web App, or call (217) 332-6338 using conference ID: 92935605).

The application for the 2019-2020 cohort is due Wednesday April 24. Decisions for selection into the program in year 1 or for deferral for consideration in year 2 or 3 will be made by Wednesday May 1.

Thank you in advance for your interest in CISTEME365. If you have any questions, please contact:

Lynford Goddard  
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About the Program

Overview: Informal technology-rich learning can have a transformative impact on students' self-efficacy and ambition to pursue a career in STEM. A few key challenges are: enabling students access to participate, making the impact of such experiences endure, integrating them with other school efforts, and purposely engaging underrepresented students. The PIs hypothesize that experiences with cutting-edge technology must exist all year-round to effect significant improvement. Thus, the fundamental project goal is to enable female, underrepresented minority, and/or low-income middle and high school students to participate in sustained, intensive, hands-on STEM learning experiences that build technical knowledge and ability and that offer insights into different STEM careers.

The PIs will design and implement a 3-pillar intervention strategy with 24 partner schools. First, the PIs will offer a comprehensive 10-day (80 hour) summer institute to equip teams (each consisting of a counselor, a teacher, and a third school stakeholder) with the knowledge, attitudes, behaviors, and resources to act as effective STEM advocates. The PIs believe counselors are an untapped resource and play a pivotal role as gatekeepers to informal learning opportunities and to educational paths into STEM careers. The PIs will also facilitate a school-year networked improvement community (NIC) that connects teams within and across schools as they conduct action research to better understand and address underlying inclusion, diversity, equity, and access issues in STEM. Second, as part of the NIC process, the PIs will work with the teams to implement out-of-school-time STEM clubs to provide unique engineering design, project-based, and other hands-on experiences (60-120 hrs/yr) to 1,000 students throughout the school year. Each STEM club will be outfitted with equipment, software, and PI Goddard's published curriculum materials to do challenging yet age-appropriate projects that teach basic concepts in design of experiment, analog and digital circuits, signals, electromagnetics, communications, controls, power and energy, microscopy, nanotechnology, photonics, algorithms, and programming. Third, scholarships will be provided to 228 students to attend existing STEM summer camps (27-44 hours) at the University of Illinois. At these camps, students explore different STEM majors and develop technical skills under the guidance of university faculty in high-tech instructional labs.

The PIs are experts in engineering, professional development, K-12 university outreach, and educational initiatives / evaluation and are complemented by an educational research consultant, an industry liaison specialist, an external evaluator, and an advisory board. The team has significant infrastructure for the summer camps and an extensive network of partner schools, districts, and career and technical education consortia to assist in implementing and institutionalizing the strategies. Thus, they are ideally qualified.

Intellectual Merit: Using a mixed-methods approach, the team will examine program effectiveness on the development of technical skills and self-efficacy in students and on the practices of counselors and other team members. They will investigate the synergistic effects of school year STEM clubs, university-hosted summer camps, and a NIC that includes counselors and teachers. The research is potentially transformative because it creates a new paradigm for advancing students' interest, self-efficacy, abilities, and pathways in STEM. By studying the interventions and their interactions and disseminating results and lessons learned in journals, conferences, and directly to school leaders, the project will advance understanding across several fields, e.g., school policy and STEM education, while promoting best practices.

Broader Impacts: The project seeks to promote inclusion, diversity, equity, and access for learning experiences and careers in STEM. It provides students opportunities and resources to immerse themselves in STEM activities throughout the year. It also enables multiple school stakeholders to effectively prepare students for a STEM major/career. This effort will benefit society by widening the path to high-demand, high-wage, high-skill STEM jobs and thereby improve the diversity of our nation's technical workforce.
1. Site information

School Name:
School Address:
School Phone Number:
Grade Levels Served (e.g., 9-12):
Link to your 2017-2018 Illinois School Report Card to provide a snapshot of school demographics:

2. Primary Contact Information

Please let us know the names and contact information for 1-2 primary contacts for your site
First Name:
Last Name:
Role/Title:
E-mail Address:
Cell Phone Number:
Home Phone Number:

3. Optional - Secondary Contact Information

First Name:
Last Name:
Role/Title:
E-mail Address:
Cell Phone Number:
Home Phone Number:

4. Proposed IDEA Team

Please identify your IDEA Team members and indicate whether they are aware of this project and have agreed to participate:

Counselor’s First Name:
Counselor’s Last Name:
Counselor’s Email Address:
Please choose the one that best applies for the counselor
   This individual has received the information and agreed to be a member of the IDEA Team
   This individual has the information and is considering participation
   This individual has not yet received the information.
   Other

Teacher’s First Name:
Teacher’s Last Name:
Teacher’s Email Address:
Please choose the one that best applies for the teacher
   This individual has received the information and agreed to be a member of the IDEA Team
   This individual has the information and is considering participation
   This individual has not yet received the information.
   Other

3rd Team Member’s Role:
3rd Team Member’s First Name:
3rd Team Member’s Last Name:
3rd Team Member’s Email Address:
Please choose the one that best applies for the 3rd team member
- This individual has received the information and agreed to be a member of the IDEA Team
- This individual has the information and is considering participation
- This individual has not yet received the information.
- Other

5. Application Materials

Statement of Interest
In 500 words or less, please tell us why you are interested in being a part of this initiative. Why is this initiative a good fit for your site? What change do you hope to see as a result of your participation? How does this initiative align with organizational missions and/or school improvement plans?

Letter of Shared Commitment
Please upload a letter of commitment indicating school and district leadership awareness and interest in CISTEME365 participation. Letter should be on official letterhead and include the signatures of a school leader (e.g., principal) and a district leader (e.g., superintendent).

Sample body of the letter: [Insert school name] and [insert district name] understand the commitments for participating in the Catalyzing Inclusive STEM Experience All Year Round (CISTEME365) program and hereby indicate interest in participating in one of the three annual cohorts.