



September 11, 2019

Dear Mahomet-Seymour HS parent or guardian,

Thanks to funding support from the National Science Foundation (NSF), the University of Illinois's Grainger College of Engineering is excited to be partnering with your student's school, and particularly the school's STEM Club. The *Catalyzing Inclusive STEM Experiences All Year Round (CISTEME365)* project seeks to promote inclusion, diversity, equity, and access for learning experiences and careers in STEM. It provides students with opportunities and resources to immerse themselves in STEM activities throughout the year. We believe that access to opportunities both in school and out of school make a difference in students' interests and pursuit of science, technology, engineering, and mathematics majors and careers. It is with this in mind that staff from [insert school name] received two weeks of training in STEM identity, careers, diversity, and engineering content at the University of Illinois this summer with the intention that the activities and resources will be shared with students through the STEM Club experience during the school year. Part of our agreement with the NSF and with the school is to study how these STEM Club activities relate to student interests, knowledge, and skills in the areas of science, technology, engineering, and mathematics. With this in mind, we are seeking your consent for your student's participation in this study. The details are provided in the attached Parental Consent form. **Please review and return the signed document on or before Monday, September 30th.** We will be providing the following opportunities to learn more about this project and to speak with the researchers:

- CISTEME365 Informational Webinar on Thursday, September 26 7:00-7:30pm. Here's how to access that event:

Join using a computer or smart phone for internet-based video and audio:
<https://illinois.zoom.us/j/987530918>

Or for audio only, dial:
1-929-205-6099 *and when prompted, enter the meeting ID: 987 530 918*

- Or in person at the club's meeting on Monday, September 30th 7:15am at MSHS

The first student survey will be administered to participating students during the STEM Club session on September 30. At that time we will also be seeking the student's agreement to participate, but only if you have provided consent first. We want to emphasize that participation in this study is NOT a requirement of STEM Club participation.

Thank you for considering and we hope you can join us for the informational webinar on September 26.

Sincerely,

Lynford Goddard
Professor, Electrical and Computer Engineering
Principal Investigator of the CISTEME365 Initiative
lgoddard@illinois.edu 217-244-0799 (office)



Parental Consent Form

Catalyzing Inclusive STEM Experience All Year Round (CISTEME365) Program Study

Your child is being asked to participate in a voluntary research study. The purpose of this study is to understand the effectiveness of the CISTEME365 educational and professional activities for the development of technical and STEM (Science, Technology, Engineering and Mathematics) skills and self-efficacy in students. Participating in this study will involve that your child responds two paper and pencil surveys and one interview. Additionally, the research team will analyze your child CISTEME365 project. Your child's participation in total will last 60 minutes. The risks or discomforts for your child will be minimal particularly accommodating the allotted time in their schedule to respond research activities. While there are no direct benefits for your child related to participation in this research, we hope that by participating in this study your child will gain a better understanding of the out of school activities and academic resources that may support your child future STEM-related career. Your child has the option to not participate in this study, and continue to remain in the CISTEME365 program activities.

Principal Investigator Name and Title: *Professor Lynford Goddard*
Department and Institution: *Electrical and Computer Engineering*
University of Illinois at Urbana-Champaign
Contact Information: *(217) 244 0799 | lgoddard@illinois.edu*
Sponsor: *National Science Foundation*

Why is your child being asked?

Your child is being asked to be a participant in a research study about CISTEME365 program activities. The purpose of this research is to understand the effectiveness of the CISTEME365 educational and professional activities on the development of technical and STEM (Science Technology Engineering and Mathematics) related-skills and self-efficacy in students. Your child has been asked to participate in this research because your child participates in one or more of the CISTEME365 activities. Approximately 100 teachers, counselors and school officials as well as 300 to 1000 middle and high school student participants will be involved in this research at the University of Illinois at Urbana-Champaign.

Your child's participation in this research is voluntary. Your and your child's decision whether or not to participate will not affect your or your child's current or future dealings with the University of Illinois at Urbana-Champaign. If you decide your child can participate, you or your child are free to withdraw at any time without affecting that relationship.

What procedures are involved?

The study will involve 1) two paper-pencil surveys 2) one interview and 3) assessment of your child final project. Paper-pencil surveys, which will not take longer 20 minutes to complete, are used to gather information about students' experience with the CISTEME365 educational activities and to assess students' conceptual knowledge in STEM and their belief in their own ability to succeed in STEM. Students will complete two surveys, one in the beginning of the program and one at the end of the program. Trained researchers, who have passed all necessary background checks, will conduct the interview. The purpose of the interview is to explore students' experiences, reactions, and opinions about the CISTEME365 learning experience. Interview will not take longer than 20 minutes to complete. Interviews will be recorded for purposes of transcription only. Recordings will be stored in a secure location until transcriptions have been completed, at which point the recording will be destroyed. Names and other identifiers will be removed within the transcription. This process will occur within 30 days of the interview. Students' final projects will also be collected and analyzed. A rubric will be developed to assess the quality of projects according to their scope, learning and intended application and/or implications.

This research will be performed at your child's school or at the University of Illinois Urbana-Champaign. Your child will need to come to the study site three times over the next year. Each of those visits will last about 20 minutes.

What are the potential risks and discomforts?

We anticipate no risks related to this research. The risks or discomforts for your child are minimal. Your child may encounter minimal discomfort allotting time in their schedule to complete the survey. Furthermore, the probability and magnitude of harm or discomfort anticipated for participation in the proposed research are not greater than those ordinarily encountered in daily life.

Are there benefits to participating in the research?

While there are no direct benefits for your child related to participation in this research, we hope that by participating in this study your child will become more aware and gain a better understanding of the out of school activities and academic resources that may support a STEM-related pathway career.

What other options are there?

Your child has the option to not participate in this study, and continue to remain in the CISTEME365 program activities.

Will my child's study-related information be kept confidential?

Any personal information gathered from the study will remain confidential in that no individual will be identified by name during any part of the study. Results of this research project may be shared through publications or conference presentations, but your child will never be identified.

We will use all reasonable efforts to keep your child's personal information confidential, but we cannot guarantee absolute confidentiality. When this research is discussed or published, no one will know that your child was in the study. But, when required by law or university policy, identifying information (including your signed consent form) may be seen or copied by: a) The Institutional Review Board that approves research studies; b) The Office for Protection of Research Subjects and other university departments that oversee human subjects research; c) University and state auditors responsible for oversight of research; d) Federal regulatory agencies such as the Office of Human Research Protections in the Department of Health and Human Services; or e) National Science Foundation (NSF), the funder of this research.

Will we be reimbursed for any expenses or paid for participation in this research?

You/your child will not be offered payment for being in this study.

Can my child withdraw or be removed from the study?

If you and your child decide to participate, you are free to withdraw consent for your child and discontinue participation at any time. Your child can also choose to stop participating in the study. The researchers also have the right to stop your child's participation in this study without your consent if they believe it is in your child's best interests, you were to object to any future changes that may be made in the study plan.

Will data collected from my child be used for any other research?

Your child's de-identified information could be used for future research without additional informed consent.

Who should I contact if I have questions?

Contact Dr. Goddard at 217 244 0799 or lgoddard@illinois.edu if you have any questions about this study or your child's part in it, or if you have concerns or complaints about the research.

What are my child's rights as a research subject?

If you have any questions about your child's rights as a participant in this study, please contact the University of Illinois at Urbana-Champaign Office for the Protection of Research Subjects at 217-333-2670 or irb@illinois.edu.

I have read the above information. I have been given an opportunity to ask questions and my questions have been answered to my satisfaction.

I agree to let my child _____ be in the research study described above.

Audio Recording during Interview

☐ Yes, I give permission for my child to be audio recorded.

☐ No, I do not give permission for my child to be audio recorded.

Student Project

☐ Yes, I give permission for my child's project to be analyzed.

☐ No, I do not give permission for my child's project to be analyzed.

I will be given a copy of this signed and dated form.

Signature

Date

Printed Name

Signature of Person Obtaining Consent

Date (must be same as subject's)

Printed Name of Person Obtaining Consent