POST-DOCTORAL FELLOW POSITION

A project team of education researchers at Purdue University has a position available immediately for a post-doctoral fellow. This position is funded by a grant from the National Science Foundation’s Innovative Technology Experiences for Students and Teachers (ITEST) program. The project will require the postdoc to analyze data and disseminate findings around student work related to engagement in integrated STEM learning experiences in a disciplinary area (i.e., agricultural life sciences) that has largely been underexplored as a culturally-relevant context for underrepresented minorities in K-12 settings.

This postdoctoral position offers the opportunity to work with faculty from the Department of Youth Development and Agricultural Education and the School of Engineering Education. During this one-year position (possibly additional years), the postdoctoral fellow would participate in data analysis, supervise the work of graduate research assistants, train graduate and undergraduate teaching assistants, publish research papers, contribute to grant writing, and help shape the overall scope and direction of the project. This position is also an opportunity to learn about design research methods and research-to-practice from faculty who have a strong track record of conducting high impact educational research activities. Project activities that will be a part of this role include helping develop and design Modeling Eliciting Activities (MEAs); helping design and deliver the teacher professional development; serving as the primary point person for the data collection, analysis, dissemination, and reporting or project results; serving as the lead author on journal and conference publications; and mentoring the graduate students. Continuation of the position for a second year is contingent upon available funding and first year performance.

A successful candidate for this position needs strong research skills, data collection, data management, coding, analysis, and excellent oral and written communication skills. Prior knowledge of/interest in problem solving, mathematical modeling, teacher professional and curriculum development would be helpful. We are also seeking applicants with skills and experience in K-12 educational settings, project management and organization. Knowledge, expertise or a professional background related to Food, Agriculture and Natural Resources, Agricultural Life Sciences, or Agricultural-STEM is preferred.

If you are interested in this position, please send your CV, cover letter, unofficial transcripts, and contact information for three references (or reference letters that also include contact information) to Dr. Levon T. Esters, Associate Professor of Youth Development and Agricultural Education (esters@purdue.edu). Application materials must be submitted by May 1, 2017.

*Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and protected veterans are encouraged to apply.*
Enhancing Minority Middle School Student Knowledge, Literacy and Motivation in STEM Using Contextualized Agricultural Life Science Learning Experiences
Levon T. Esters, Ph.D. (PI), Neil A. Knобloch (co-PI) & Heidi Diefes-Dux (co-PI)

Project Summary

This project will provide over 250 underrepresented minority (URM) urban middle school students (grades 4-6) with contextualized agricultural life science learning experiences. Ten (10) teachers will be introduced to integrated STEM learning experiences through intensive professional development (PD) in a disciplinary area that has largely been underexplored as a culturally-relevant context for URMs in K-12 settings. The project’s long-term goal is to increase the number of URM middle school students who are prepared for advanced level secondary STEM courses and postsecondary majors in STEM. The STEM learning experiences are grounded in the principles of culturally-relevant pedagogy and contextualized-inquiry. The learning experiences provided to students will focus on the integration of the agricultural life sciences, physical sciences, engineering, computational science, and mathematics. The project team will develop four open-ended, real-world learning activities, Modeling-Eliciting Activities (MEAs), which connect students to their community through agricultural life science contexts. Four major societal challenges—Health, Energy, Environment, and Food—guide the development of agricultural life science-based MEAs (AgLS MEAs). The project’s three major components are to: 1) design, field-test, implement, and evaluate middle school level integrated AgLS MEAs using agricultural life science based community issues and the four Societal Challenges as contexts for learning; 2) conduct teacher PD on the effective use of the integrated MEAs and evaluate the potential for sustained impact; and 3) engage middle school students in integrated MEAs to enhance their level of community engagement, career exploration, STEM knowledge, literacy and motivation.