

**Two New Faculty Positions**  
**INNOVATIONS IN P-12 sTEM EDUCATION**  
**Purdue University College of Technology**

Purdue University is proud to announce two positions for the “Innovations in P-12 sTEM Education” Initiative available August 2009. The Colleges of Technology, Engineering, and Education launched an innovative collaboration in P-12 sTEM Education in 2005. Four faculty members across the colleges have been hired for the initiative. “Innovations in P-12 sTEM Education” is aligned with national initiatives focused on STEM education (science, technology, engineering, and mathematics), with an emphasis on the often neglected T and E fields (Technology and Engineering). This year’s searches seek additional faculty with a primary home in the College of Technology.

The College of Technology consists of eight academic departments including plans of study that blend technical coursework with communication and humanistic-social studies including: Aviation Technology; Building Construction Management; Computer Graphics Technology; Computer & Information Technology; Electrical & Computer Engineering Technology; Industrial Technology, Industrial Distribution, & Engineering/Technology Teacher Education; Mechanical & Manufacturing Engineering Technology; and Organizational Leadership & Supervision.

**Position 1**

**ASSISTANT/ASSOCIATE PROFESSOR:** Applications are invited for a full-time, tenure-track faculty member to join our “Innovations in P-12 sTEM Education” Initiative with a primary focus in Engineering/Technology Teacher Education. A joint appointment in another College of Technology, Colleges of Engineering, or College of Education department participating in the initiative is possible.

**Position 2**

**ASSOCIATE/FULL PROFESSOR:** Applicants are invited for a full-time, SENIOR faculty member to help lead the “Innovations in P-12 sTEM Education” Initiative for the College of Technology. The home department for this position will be determined in the best interest of the college and the successful candidate. A joint appointment in College of Technology, Colleges of Engineering, or College of Education departments participating in the initiative is possible.

**POSITION RESPONSIBILITIES:** These positions are 10-month, tenure-track positions. Candidates must have an earned doctorate in a field related to the appointment. Successful candidates are expected to build collaborative relationships with colleagues in the P-12 sTEM cluster and related disciplines, conduct and publish research, secure funding for their research program, teach graduate and undergraduate courses in their areas of expertise, recruit and advise graduate students, and lead P-12 engagement efforts related to Innovations in sTEM Education. Position 1 candidates are expected to have a background in teaching engineering technology education at the K-12 level, a conceptual understanding of teacher education, and evidence of building a research agenda focused on sTEM. Position 2 candidates are expected to have extensive research experience and a fully developed track record of funded research and scholarship, and the credentials to be hired with tenure. A named professorship in the College of Technology could be available for the senior applicant with the appropriate qualifications.

**“INNOVATIONS IN P-12 sTEM EDUCATION” INITIATIVE**

Across the colleges of Technology, Engineering, and Education, the P-12 initiative applies research-based best practices and cultivates long-term partnerships to stimulate personal growth, creativity, and lifelong learning to motivate and prepare the next generation of professionals in engineering and technology to be leaders in our rapidly evolving global economy. Priorities for this initiative are:

- Conducting research to discover how young children learn and engage in sTEM, and how employing experiential practices, problem solving skills, and design can enhance learning; P-12 teaching experience is a plus;
- Utilizing cutting-edge technology associated with gaming, augmented reality, and virtual reality, to delivery P-12 curricula in engineering and technology in innovative and more effective ways;
- Developing in-service and pre-service teacher preparation programs in P-12 environments through quantitative and qualitative assessment methods tied to specific program standards, goals and objectives;
- Increasing society’s appreciation and working knowledge of how science and math are related to engineering and technology and impact everyday life;

- Investigating factors that will attract more women and minorities into engineering and technology;
- Leading advocacy efforts with state and national legislators to influence policy-making and impact resources available to increase public support of P-12 sTEem learning; and
- Conducting research-based inquiry into P-12 sTEem educational initiatives and reform.

Examples of sTEem research at Purdue University include:

- Surprising Possibilities Imagined and Realized through Information Technology (SPIRIT), PI: Alka Harriger, Co-PIs: Kyle Lutes, Buster Dunsmore, [www.ITPossibilities.org](http://www.ITPossibilities.org)
- Software for Math Education of the Deaf (Mathsigner™), PI: Ronnie Wilbur, co-PI: Nicoletta Adamo-Villani, <http://www2.tech.purdue.edu/cgt/I3/smile> ; <http://www2.tech.purdue.edu/cgt/I3/>
- Indiana Interdisciplinary GK-12, PI: Jon Harbor, CoPIs: Melissa Dark, Leah Jamieson <http://www.purdue.edu/dp/gk12/>

**POSITION OPPORTUNITIES:** In addition to working with the P-12 sTEem faculty already hired, these faculty will have opportunities to work closely with existing initiatives at Purdue that focus on P-12 sTEem education such as:

- CRESME – The Center for Research and Engagement in Science and Mathematics Education <http://cresme.education.purdue.edu/>
- DLC – the Discovery Learning Center <http://www.purdue.edu/dp/learningcenter/>
- ENVISION Center – <http://www.envision.purdue.edu/>
- GERI – The Gifted Education Resource Institute <http://www.geri.education.purdue.edu/>
- INSPIRE – The Institute for P-12 Engineering Research and Learning <http://engineering.purdue.edu/ENE/INSPIRE>
- I-STEM Network Resource <http://www.istemnetwork.org/>
- The IDEaLaboratory for sTEem research <http://idealaboratory.org>

**PURDUE UNIVERSITY:** Purdue, a leading land, sea and space grant research university ranks among the 15 largest and most prestigious universities in the nation. The university has an enrollment of more than 38,000 on the West Lafayette, Indiana Campus. Purdue is distinguished for its focus on engineering, science, education and technology that includes an interest in developing innovative programs and high quality graduates. During the 2001 – 2007 time-frame, the university raised approximately \$1.7 billion and added 300 new faculty positions in support of an ambitious strategic plan. The newly developed 2008-2014 Strategic plan focuses on developing New Synergies with the three focus areas of Launching Tomorrow’s Leaders; Discovery with Delivery; and Meeting Global Challenges.

**APPLICATION:**

Applications must include: application letter; curriculum vitae including at least four professional references with address; statement of philosophy, goals, and interested related to sTEem discover, learning, and engagement. Screening of applications will begin on January 16, 2009, and will continue until the positions are filled.

Purdue University  
 College of Technology sTEem Faculty Search  
 401 N. Grant Street (CGT)  
 West. Lafayette, IN 47907-2021

Digital submissions are encourage and should be sent to: [cgtinfo@purdue.edu](mailto:cgtinfo@purdue.edu). Questions related to these positions may be addressed to Kathrynne A. Newton, at [kanewton@purdue.edu](mailto:kanewton@purdue.edu), Search Co-Chair.

Purdue University is an equal opportunity/equal access/affirmative action employer full committed to achieving a diverse workforce.