Dear Indiana STEM Teachers,

The following is an update about opportunities in STEM education at Discovery Park and Purdue for teachers and students. These opportunities include teacher workshops, summer science camps for students and events for everyone.

Please share these opportunities with your students and colleagues!

If you have any questions or comments please contact us.

Best wishes for a great summer!

Chris Foster
Director of P-14 STEM Programs at Discovery Park
http://www.purdue.edu/dp/p12stem/

2010 Updates:

Purdue Guitar Workshops for Teachers and Students

June 28-July 2, 2010
July 12-16, 2010
July 26-30, 2010

The Mechanical Engineering Technology and Acoustics Lab (METAL) will sponsor Guitar Workshops. There will be three workshops available this year. Workshop dates are June 28-July 2, 2010 for 18 girls in 10, 11, and 12th grades ($950); July 12-16, 2010 for 18 students in 10, 11, 12th grades ($950); and July 26-30, 2010 for 20 participants ($1450). The curriculum modules and supporting information will be posted on the web site for the guitar lab

(www.metalsound.org).

NEXTRANS High School Internship in Transportation

( http://www.purdue.edu/discoverypark/nextrans/edu/k12.php)

Headquartered at Purdue University, the NEXTRANS Center is one of ten Regional University Transportation Centers selected competitively by the U.S. Department of Transportation to serve as leaders in meeting the nation's need for safe, efficient, and environmentally-sound transportations systems.

The Center is currently seeking qualified applicants for the NEXTRANS High School Internship in Transportation. This program provides qualified students with the
opportunity to complete a 4-6 week program of research and activities at Purdue University. Participants will be exposed to the field of transportation through hands-on research activities under the guidance of a NEXTRANS Research Assistant. By fostering a challenging environment in which students learn through discovery, the Center hopes to attract a new generation of leaders to transportation-related careers.

Applications are accepted on a rolling basis, and each 4-6 week program is scheduled to suit the individual student’s needs. Students will work approximately 20 hours per week at the NEXTRANS Center, and will be compensated for their time ($8-10 per hour). Applicants should live in close proximity to the West Lafayette / Purdue University area.

To apply, or for additional information, please contact Jessica Mehr via email jmehr@purdue.edu, or phone 765-496-9734. To learn more about NEXTRANS, visit www.purdue.edu/discoverypark/nextrans

**Purdue zipTrips**

An innovative program to create science-based electronic field trips for students in grades 6–8. These field trips use technology to provide virtual visits to the West Lafayette campus, where students will meet scientists from Purdue’s School of Veterinary Medicine, Purdue Agriculture, and Discovery Park, and learn first-hand about their work. Purdue zipTrips is funded by a grant from the Howard Hughes Medical Institute.

Visit www.purdue.edu/ziptrips to learn more.

**Indiana Space Grant Consortium**

The Indiana Space Grant Consortium (INSGC) includes 23 affiliates who work together to promote STEM education initiatives related to NASA themes and careers in the State of Indiana. Purdue University in West Lafayette, IN, serves as the INSGC lead institution under the direction of Dr. Barrett Caldwell.

Please see website for more details and opportunities. http://www.insgc.org
For questions contact: insgc@purdue.edu

**Other Purdue Opportunities:**

**Standards-Based Integrated Instruction (SBII)**
Summer Workshops: July 12-23, 2010

A summer workshop, Infusing Energy Education into Mathematics, Science, and Social Studies is available for Grade K-8 Teachers. This project is supported, in part, by an Improving Teacher Quality Partnership Program grant (Public Law 107-110) administered by the Indiana Commission for Higher Education.

http://www.purdue.edu/eas/workshop/sisi.html
For questions-Contact: Sally Louk (slouk@purdue.edu) (765) 494-9632

Center for Compact and Efficient Fluid Power – NSF – Portable Water Hydraulic Demonstrator and Curriculum

The goal of this project is to develop a demonstration kit and accompanying activity-based curriculum that teaches the basics of fluid power in a way that is complex enough to provide challenging learning experiences for teachers and students, yet simple enough to be economical, reliable and portable. The design and construction of the kit is finished and curriculum development for students in grades 8-12 is underway. The kit includes materials needed to assemble a complete working micro-excavator, using water hydraulics or pneumatics that can be built and implemented in classrooms or hands-on displays. Fabrication instructions for the apparatus have been developed for dissemination throughout CCEFP and its member companies.

Website: http://www.ccefp.org/education-outreach/pre-college-education/b3
For questions: Jill Wable at jwable@purdue.edu

Computer Camps Held at Purdue University

iD Tech Camps: Ages 7-17

WEEKLONG | CO-ED | DAY CAMPS | OVERNIGHT CAMPS
COURSE TOPICS: VIDEO GAME DESIGN, PROGRAMMING, WEB DESIGN, & MORE

Join us for our 2nd season at our Purdue University location in West Lafayette, IN. iD Tech Camps is North America’s #1 summer computer camp. Our summer kids camps and teen camps are designed for beginner to advanced learners. Our popular Purdue University summer day camps and overnight camps average 6 students per instructor for customized instruction delivered by highly trained adult-only staff. Purdue University is one of the
nation’s leading research institutions with a reputation for excellent, cutting-edge research and affordable education. Overall, Purdue has earned 18 top-10 academic rankings.

We offer a variety of cutting-edge summer camp courses for kids and teens including video game design, Flash animation, programming, video editing, and more—using the best brand name products from Adobe®, Apple®, Autodesk®, Microsoft® and beyond. Come explore the Purdue University campus and gain technical skills that will last long after summer camp ends. Ignite your internalDrive and do something big this summer! Continue to Step 2 for Course Availability.

**Women in Engineering Summer Camps**

**Women in Engineering Summer Camps**

**WIEP Events**

Registration is now open for two Purdue University Women in Engineering Program summer camps for middle and high school students.

**Engineering FYI: For Your Imagination Summer Camp**

**July 12 - 16, 2010 - REGISTRATION IS OPEN!**

The Engineering FYI: For Your Imagination residential summer camp is focused on girls who have completed 7th and 8th grades. The campers will work with current Purdue Engineering students on hands-on activities such as designing a solar oven and building a robotic arm. Campers will also tour Purdue Engineering laboratories and meet faculty and graduate students conducting cutting edge research.

Cost for the camp is $400, which covers tuition, room and board, materials and supplies.

Summer Residential Camps
Sponsored by the Purdue College of Education’s Gifted Education Resource Institute (GERI) in June & July. For more than 30 years these camps have offered a wide range of educational classes and social activities designed to give students an opportunity to experience an academic environment and life on a college campus.

- June 27-July 10 – Star I (for students completing grades 7-8)
- June 27-July 10 – Pulsar I (for students completing grades 9-12)
- July 11-24 – Star II (for students completing grades 7-8)
- July 11-24 – Pulsar II (for students completing grades 9-12)
- July 11-17 – Comet I (for students completing grades 5-6) – commuter and residential options
- July 18-24 – Comet II (for students completing grades 5-6) – commuter and residential options

The hands-on classes are designed to allow students the opportunity for in-depth immersion in topics that include engineering, forensics, law, journalism, literature, history, physics, premedicine, anatomy, chemistry and computer science.

In addition to the residential camps, the institute also offers Super Summer, a day camp for gifted and talented children ages 4 (pre-kindergarten) through fourth grade. A variety of classes are offered on topics such as science, animals, space, archeology and painting.

Dates for Super Summer are as follows:

*Super Summer I: June 14-18

*Super Summer II: June 21-25

Pre-kindergarten children must be eligible to start kindergarten in the fall of 2010.

For more information on the institute’s summer residential camps, visit [http://www.purdue.edu/geri](http://www.purdue.edu/geri) or e-mail geri@purdue.edu

Nielsen Pereira, Gifted Education Resource Institute, 765-494-7241, npereira@purdue.edu

**Lugar-Purdue Future of Forestry Program and Scholarship**
Do you know a student interested in forestry, or an ag or science teacher? Purdue University and Richard Lugar, U.S. Senator and woodland owner from Indiana, are teaming up to show students just how exciting the science and management of forests can be. We’re asking high school agricultural education and science teachers to recommend and sponsor qualified students in grades 9-11 for the Lugar-Purdue Future of Forestry Program.

Students take an online course about basic forest science and plan and conduct an independent research project under adult supervision. Upon completion they take away a better knowledge of forest science, an award certificate from Senator Richard Lugar, and consideration for the $3,000 Future of Forestry Program Scholarship in Purdue’s Department of Forestry and Natural Resources.

Please share information on this program with local high school teachers or students. For more information, see [www.ag.purdue.edu/fnr/Lugar/Pages/default.aspx](http://www.ag.purdue.edu/fnr/Lugar/Pages/default.aspx).

**Watch for:**

**Discovery Park’s** second annual **Afternoon for Educators at Discovery Park** to be held Wednesday, August 4 from 2:00-4:00 p.m. in the Center for Discover and Learning Research. Please come for a good look at Discovery Park and to find out about STEM Education opportunities during the coming school year.

**Network for Earthquake Engineering Simulation Operations (NEES):**

*June 28-29, 2010*

EOT Summer Workshop. Mission: to foster an active EOT constituent among the sites, NEES researchers, and complementary organizations committed to developing and implementing effective learning experiences related to the earthquake engineering, science, and the mission of the sites.

[http://www.nees.org](http://www.nees.org)

*Education, Outreach & Training Coordinator: Barbara Cooper, bccooper@purdue.edu, 765-494-6519*

**Purdue Homeland Security Institute:** A project in data visualization for classrooms. Look for 2 1-day June teacher workshops.

Visit us at: [http://www.purdue.edu/dp/phsi/](http://www.purdue.edu/dp/phsi/)
Tours of Discovery Park

Have you and your class been to Purdue University’s newest research facilities? We would like to invite you to take a tour.

http://www.purdue.edu/discoverypark/main/scheduleTours.php

Discovery Park Science Education Resources, K-12 Teachers:
Programs at Discovery Park with resources for teachers.

http://www.purdue.edu/discoverypark/learningcenter/resources/index.php

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