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:

VACCINE (Visual Analytics for Command, Control and Interoperability Environments) Teacher Workshop

Two Sessions: June 3rd or 4th, 2010 8:00 am-3:30 pm

One-Day Visualization and Data Analysis Workshop at Discovery Learning Research Center for Middle and High School Teachers. Homeland Security examples, curriculum development and hands-on learning modules.

7 Professional Growth Plan Points (PGP) available
$150 stipend to each teacher who attends
Prizes awarded for curriculum input and development

To register: Go to www.esc5.k12.in.us and look under the “Workshop Information/Registration” tab located in the blue Quick Links section. See poster.

Purdue Guitar Workshops for Teachers and Students

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

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
The curriculum modules and supporting information will be posted on the web site for the guitar lab (www.metsound.org).

**NEXTRANS High School Internship in Transportation**

(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 transportation 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:

Adventures in Computer Science Summer Camp

*June 13-18, 2010*

Sponsored by the Computer Science Department's K-12 Outreach Program, this camp is open to students who will enter grades six through eight in the fall. Previous computer science or programming experience not necessary, but campers should be comfortable using a computer. Hands-on applications using programs such as Python, Alice, Lego Robotics, JavaScript and PicoCricket design studio.

$450 registration fee - Camp staff provide 24-hour supervision. Camp will conclude with a recognition luncheon and project show-and-tell that family members may attend for $10 each.

Space is limited, registrations before June 1 receive a discount. Parents can register students at http://www.conf.purdue.edu/cscamp

For more information about the camp, contact Mindy Hart at 765-494-7802, mindy@purdue.edu.

College of Science Summer Institute

*June 20-25, 2010*

Known as CoSSI for short, this five-day summer experience encourages students to be a part of the excitement of science at Purdue University. This year the summer experience will focus on the theme Energy Matters. Sponsored by Multicultural Science Programs at Purdue.
Summer Course in Plant Biology – Workshop for High School Teachers

*June 21-25, 2010 Classes are @ 9:00-noon and 2:00-5:00pm daily*

‘Inside Plants: Plant Anatomy and Development’. A 5-day workshop for High School Teachers to study plant structure. This course will focus on helping you to incorporate active learning into your classrooms. On-campus lodging & meal cards provided by BTNY. Cost is $927.90. This course will provide 3 graduate credits from Purdue University. Enrollment is limited to first 10 registrants. Deadline is June 1, 2010.

For more information contact Dr. Mary Alice Webb ([webbm@purdue.edu](mailto:webbm@purdue.edu)). For an application, contact Lisa Harker at ([laharker@purdue.edu](mailto:laharker@purdue.edu)) or call (765) 494-2973.

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](http://www.purdue.edu/eas/workshop/sisi.html))

For questions>Contact: Sally Louk ([slouk@purdue.edu](mailto: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](http://www.ccefp.org/education-outreach/pre-college-education/b3)
For questions: Jill Wable at [jwable@purdue.edu](mailto:jwable@purdue.edu)

**Computer Graphics Technology Summer Camp**

_June 20-25, 2010_

The Computer Graphics Technology Summer Camp is a residential camp that offers intensive training in World Wide Web Development, 3-D Animation, Solid Modeling, Digital Publishing, Multi-Media, Technical Illustration, gaming, programming, and many other aspects of computer graphics for high school students (freshmen through seniors). The week will be packed full of exciting technology, entertainment, field trips, and fun! At the end of the week, there will be an awards luncheon at the Purdue Memorial Union (North Ballroom) to honor outstanding work by individuals and to look back on the week's events. Additional tickets for family and friends to attend the awards luncheon are $15 each. Please note: Luncheon tickets are available only by advance purchase and at registration; they will not be available the day of the awards luncheon.

To register online, please click "add to cart" and fill in the appropriate fields from there. To register online you are required to pay by credit card. We accept VISA, MC, AMEX and Discover. To register by mail, view and print the registration form. [PDF] View Registration Form

For more information, please contact Erica Wilson in the Purdue Conference Division, at (765) 494-7221 or (800) 319-2197 or by e-mail [ericaw@purdue.edu](mailto:ericaw@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.

**Exciting Discoveries for Girls in Engineering (EDGE) Summer Camp**
Session I: June 13 - June 18, 2010 - REGISTRATION IS Closed!

Session II: June 20 - June 25, 2010 - REGISTRATION IS Closed!

EDGE is a residential camp focused on girls who have just completed their freshman or sophomore year in high school, and is designed to better acquaint the participants with opportunities in engineering and how their interests and talents can be utilized in this exciting career. The campers will spend a week on Purdue's campus learning about engineering by doing activities such as building their own electronics device, creating a cardboard chair and touring engineering laboratories and a production facility.

The cost is $450, which covers tuition, room and board, materials and supplies.

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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 708)
- 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 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.

**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.

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

Look for: teacher workshops and science events for all.

[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.


**Discovery Park Science Education Resources, K-12 Teachers:**

Programs at Discovery Park with resources for teachers.


Christian Foster

Director, P-14 STEM Education, Discovery Park

Hall for Discovery & Learning Research, Rm. 204-B

207 S. Martin Jischke Dr.