

IU1 Center for STEM Education: SUMMER 2008 SCHEDULE
 Visit our NEW website: <http://www.iu1stemcenter.org>

Engineering by Design: IU1 STEM COURSES	CREDITS and COST	DATES	AUDIENCE
<p>Invention, Innovation & Inquiry (Engineering by Design) or I³ - Instructor: Kirsten Perry, Cambria County Christian School, Location: California University of PA (reduced tuition & materials costs due to a Benedum STEM grant and PDE support) These lessons are designed to integrate science, mathematics and language arts with the basic technology and engineering concepts. Each unit has standards-based content, suggested teaching approaches, and detailed learning activities including brainstorming, visualizing, testing, refining, and assessing technological designs. Students learn how inventions, innovations, and systems are created and how technology becomes part of people's lives. Limited to 15</p>	<p>1 Credit \$70.00</p>	<p>June 30 & July 1, 2008</p>	<p>Grades. 4-5 science & technology education teachers</p>
<p>Exploring Technology (Engineering by Design) - Instructor: Dan Engstrom, CalU Location: California University of PA (reduced tuition & materials costs due to a Benedum STEM grant and PDE support) Participants will develop an understanding of the progression and scope of technology through exploratory experiences. In group and individual activities, they will experience ways in which technological knowledge and processes contribute to effective designs, and how abilities and skills contribute to effective design and solutions to technological problems. Teachers participate in design activities to model how criteria, constraints, and processes affect designs. They will develop skills in communicating design information and reporting results. This course is a cornerstone for a middle school technology education program. Limited to 15</p>	<p>1 Credit \$70.00</p>	<p>July 14 - 15, 2008</p>	<p>Grade 6 technology education teachers</p>
<p>Foundations of Technology (Engineering by Design) - Instructor: Glenn Hider, CalU Location: California University of PA (reduced tuition & materials costs due to a Benedum STEM grant and PDE support) This course will focus on the three dimensions of technological literacy: knowledge, ways of thinking and acting, and capabilities with the goal of students developing the characteristics of a technologically literate citizen. Teachers will develop an understanding of the influence of technology on history by exploring how people of all times and places have increased their capability by using their unique skills to innovate, improvise and invent. They will gain an understanding of technology innovation, engineering design, manufacturing technologies, construction technologies, energy and power technologies, communications technologies and their role in maintaining competitive economic growth. Limited to 15</p>	<p>1 Credit \$70.00</p>	<p>July 17-18, 2008</p>	<p>Grade 9 technology education teachers</p>

To register for any of these IU1 STEM courses, go to the Intermediate Unit 1 website: <http://www.iu1.org> or www.solutionwhere.com/iu1
 If you need help with registration, please call Keith Golebie, Ext. 250. IU1 phone number is 724-938-3241 or 1-800-238-6481.

For more information about Engineering by Design: <http://www.iteaconnect.org/EbD/CATTS/catts.htm>

For more information about the PA state initiative for Engineering by Design:
http://www.able.state.pa.us/science_tech/cwp/view.asp?a=201&Q=125471&science_techNav=1107841&science_techNavPage=110991