

Professors Announce Future Plans



Dr. Laporte and Dr. Kerekyarto at their last faculty meeting.

Two well-known and highly-esteemed professors stepped down from their positions with the Department of Industry and Technology at the end of the spring 2011 semester. Retiring from the faculty this year are Drs. George Kerekyarto and James LaPorte.

George started his tenure at Millersville University in the fall of 1989. His areas of responsibility have been primarily in Production Technology although he has taught management courses in Industrial Training, Total Quality Management, and Construction Project Management. His most recent exploits in kayak design and fabrication won him local acclaim and recognition. George's sense of humor, light-hearted manner, gregarious nature, and technical expertise specifically in the areas of wood and polymer technology will be hard to replace.

Jim joined the faculty in the fall 2004 with responsibility for courses in Production Technology. Jim is internationally recognized within the Technology and Engineering Education profession and in addition to his esteem, brought to Millersville University the *Journal of Technology Education*, which he edited for many years. His expertise and wisdom is sought by many and will be missed by all.

We wish George "Kayak-yarto" and "Montana" Jim the very best as they each open new chapters in their lives.

Dr. Scott Warner Organizes a Cohort



Dr. Scott Warner

Dr. Scott Warner, Graduate Coordinator, is seeking potential graduate students who are interested in joining a cohort to complete a Master's of Education in Technology Education in a two-year time frame. Working through the program as part of a cohort will make the graduate experience more meaningful as learning experiences are shared with your peers. The cohort approach also creates many opportunities to develop professional contacts and long-term networking connections. The department's core of courses will be offered at a rate of at least one per semester during those two years. For convenience courses will be offered at the 42 Prince Street facility in downtown Lancaster. Most courses will meet for three hours, once a week, in the evenings or on Saturday mornings. The sequence in which the core courses will be offered is planned as follows:

- EDTE 602 Technology: Impacts and Assessment
- EDTE 600 Teaching Technology Across Disciplines
- EDTE 601 Planning Technology Education Programs
- EDTE 646 Writing the Professional Paper
- EDTE 698 R&D in Tech. Areas **or** EDTE 699 Thesis

To officially start this cohort of study, Dr. Warner is encouraging students to enroll in ITEC 586: The Institute for Design Based Education, to be held July 18-22, 2011.

For more information about becoming a member of this cohort, and about the department's graduate program, you should contact Dr. Scott Warner at 717-872-3365, or send him an E-mail at scott.warner@millersville.edu

Industry & Technology Summer Classes

Summer 2: June 13 - July 15, 2011

- EDTE 590: Information Literacy Through Guided Inquiry
Dr. Joe McCade, MTWRF, TBA (Online)
- ITEC 301: Technology and Its Impact on Humans (P)
Dr. Tom Bell, MTWRF, TBA (Online)

Summer 3: July 18 - August 19, 2011

- ITEC 586: Institute for Design-Based Education.
Dr. Scott Warner, 7/18 - 7/22/2011 - MTWRF, 8:00 - 4:30

Student Conquer Alaska Design Challenge



A lesson plan created by two technology education majors at Millersville recently received first place in “The Alaska Design Challenge,” a competition sponsored by the Anchorage school district of Anchorage, Alaska. Seniors Jon Jarrett and Thomas Flick submitted their entry, “Innovation and Design:

Communications Systems,” to this national competition and took away top honors.

Together, Jarrett, of New Columbia, Pa., and Flick, of Elimsport, Pa., competed against technology education students from all over the United States to design a 10-day lesson plan to be used in a modern communications systems course. Students graduating in the spring or summer of 2011 worked individually or in teams of two to complete this challenge.

Required activities in each of the plans included the engineering design process and concepts of design for making informed decisions based upon mathematical data. The instruction also had to include a design brief, titled “Emergency Communications Challenge,” as an activity.

The two spent a great deal of time working together on constructing the plan and their efforts were recognized at the 21st Annual Anchorage Career and Technology Education Conference, February 4-5. Jarrett and Flick each received \$1,000 for winning first place as well as an all-expense paid trip to Alaska for the conference.

Jarrett and Flick both felt the entire experience was, “a great opportunity to demonstrate what we learned through our courses and time spent at Millersville University.”

North Side Renovation Project Underway - Target Completion June 6

A small construction project began recently at the north end of Osburn Hall. The project, known as the North End Renovation, is being completed to improve rainwater management and to create a better for for the sidewalks and pedestrian traffic.



“Rainwater management at north end of the building has been a problem since we moved back in following the 2004 renovation,” says Jim Deisley, laboratory technician. A combination of grading and undersized storm water conductors has caused the metals lab and some of the offices on the second floor to flood when there is excessive rainfall. “This is a problem that needed attention so that the offices can stay dry to prevent problems with damage and mold.”

Demolition of the existing sidewalks started on May 18, 2011. “We would have liked to have started last week, but with the huge amount of rain we have gotten, it was too wet,” said the foreman of the Reamstown Excavation Company. “Now that we’re started, it should go quick.”

The project includes installing new, larger storm drain lines and inlets, creating some permeable surfaces to passively distribute rainwater, establishing more fall away from the building in the grading, and realigning the sidewalk so it follows the contour of the curb along Pucillo Drive. “The final product will be a lot nicer for pedestrian traffic,” says Deisley, “and help to avoid future water damage.”

Graphic Students Do Well in Competition

Several Industry and Technology students were recently honored by the Academy of Screen Printing Technology (ASPT) for work they completed and entered in the 2010 Tom Frecska Student Printing Competition. The competition is divided into two divisions, secondary and post-secondary, with twenty-four unique categories representing all applications of screen printing. These categories encompass screen printing technology from industrial printing applications to decorative arts, and everything in between.

“This year (2010) was the first time MU entered the competition, and I think we showed ourselves extremely well,” says Dr. Mark Snyder, graphic communications technology professor. “It’s an international competition, and our students went up against some pretty formidable global competition.”

MU students took honors in three categories. Brad Caldwell and Chris Williams captured the “Award of Excellence” distinction in two categories. Caldwell placed first in the fine art/digital category and Williams took top honors in the finished garment (light)/single-multicolored competition. Stefanie Kulczykyj secured a certificate of merit in the special effects - textile/single-multicolor competition. Both Caldwell and Kulczykyj graduated with BSE in technology education in May, and Williams will be a senior in the graphic communication technology option this fall.

Also this semester, the Flexographic Technical Association (FTA) announced its Best of Show award for 2010 at the FTA Conference and Exposition. Mike Housel, Tyler Ritchie, and Amanda Trzcinski won a Bronze Award for their shampoo/conditioner label and were awarded a Gold Award for graphic design. Jack Bowling won a Silver Award for graphic design for the Marauder Water label.



Redesigned Digital Imaging Class Clearly Puts Focus on New Images

Digital imaging. Everybody knows what that is, right? Get yourself a digital camera and a fancy printer and you're in business. It's not that simple anymore, according to Dr. Mark Snyder, graphic communication professor and industrial technology coordinator.

Changes to the curriculum in the graphic communications option brought about a new course

replacing the still photography course and the former digital imaging course. Before the change, both courses focused on capturing images with cameras (digital and analog), processing them (using computers or chemicals), and making prints (inkjet output or in the darkroom). The new course, also called digital imaging, takes the process further and considers not only capturing and accurately processing images, but also the end products that students may create.

The migration from traditional wet photographic processes to digital began in the department several years ago. It became apparent when major companies like Eastman Kodak ceased manufacturing film cameras (announced in 2004) that wet photography was fast becoming a technology of the past, now more of an artistic medium. The decision was made that further development in photographic imaging should be all digital.

"It's important for me to convey that digital imaging is much more than just digital photography," says Dr. Snyder. Digital imaging deals with combinations of images and words to create the larger, dynamic images that surround us. "Just look around the next time you're at the mall," says Snyder, "Digital imaging is everywhere."

One such example of modern digital imaging can be seen adorning the lobby windows of Osburn Hall. Last semester, Snyder and his "new" digital imaging class created a four-panel graphic to advertise the program, and the new name coming in 2011-2012. Completed as a class project, the image mixes several photographs and text. The images and text were combined using industry-standard photo editing and layout software into one larger, seamless image. This image was then divided into four panels and output using a large-format ink jet printer. The medium it is printed on window film, specifically designed for images to be used on glass. This medium is a mesh with thirty percent open.



Dr. Snyder and students install new graphic.

This means that the image you see is printed over this mesh using seventy percent coverage to carry the image. When laminated and peeled from the backing, this mesh allows for the image to be viewed from the outside while people on the inside can still see through the window.

"It was an exciting project," says Dr. Snyder. "The students really got into putting it together."

You can expect to see a lot of interesting images coming out of the digital imaging classes in the future. Dr. Snyder is always on the lookout for new and inventive ways to create digital images. Some of the exciting projects that came out of the digital imaging classes are photo montages, panoramas, gleece prints, high dynamic range photographs, and infrared images. Camera control, process, and post capture processing are emphasized in this class.

Editors Note: Dr. Mark Snyder recently offered a "Showcase of Scholarship" talk to Millersville University faculty about infrared photography and published an article in February 2011 issue of **Tech Directions** titled "Exploring Digital Infrared Photography." You can view the article at <http://digital.ipcprintservices.com/publication/?i=59759>.

Dr. Tom Bell Delivers Graduate Address

Dr. Tom Bell was chosen to address the second graduate commencement on May 6, 2011. Dr. Bell's speech was titled "Technological Literacy and the Need to Anticipate Change."



Dr. Tom Bell

Dr. Bell was selected to deliver the commencement address because he is an internationally known expert in the field of technology and engineering education, as well as a two-time graduate of Millersville University. Dr. Bell graduated from Millersville with his Bachelor's degree in 1983 and went on to teach graphics at a school district in New Jersey. A year later he decided to come back to Millersville and completed his Master's in Industrial Arts Education. While working as a graduate assistant he worked closely with his professors and was encouraged to pursue his doctorate at the University of Maryland. After completing his Ph.D. in 1992, Dr. Bell taught at Ball State and the University of Maryland before returning to Millersville as a faculty member in August of 1995.

Dr Bell is currently the President of the International Technology and Engineering Education Association (ITEEA), which was previously known as the American Industrial Arts Association. ITEEA is the international organization that represents the 35,000 teachers, state supervisors, and university professors who take part in technology and engineering education.

Bio-Related Technologies Class Collaborative Creation

Dr. Sharon Brusic offers a course called *Bio-Related Technologies*. Reserved for technology education students, it is a foundation course designed to provide experiences with bio-related technologies to address requirements in Pennsylvania's Standards for Science, Technology, and Engineering Education. The class examines agricultural, medical, and other technologies that directly relate to living organisms. The class also relies heavily on problem-solving, design, and research activities for understanding bio-related technologies, issues, and impacts.

One of the problems that students are given is to design, produce, and test devices for people with physical limitations. Dr. Brusic developed an activity called "Cone Crazy." This challenge asks the students to design an assistance device to enable someone without hands to eat an ice cream cone without the help of another person. The students document their technological problem-solving process while they produce and test prototype solutions to this problem. Students are judged on six criteria, including problem-solving documentation, product function, product form, device construction, adherence to project requirements (including documentation of human factors engineering design considerations), and final presentation.

Korbin Shoemaker took the design challenge and created a device that set a new standard for excellent design. Shoemaker, along with his classmate Lucas Sandoe, developed a fully functional prosthetic hand. The prosthetic hand is the result of a great deal of student research and a lot of collaboration between several content areas. Dr. Hosein Atharifar provided guidance on the design and engineering, and helped Shoemaker and Sandoe create the mechanical drawings and plans for the device. Dr. Chris Erickson provided support through fabrication and problem-solving. "This is an ingenious solution to the problem using simple materials," says Dr. Brusic. "It is also a great example of collaborative problem-solving and design that requires students to use and apply concepts and skills across several content areas."

The "Cone Crazy" project has been implemented for several semesters and students' solutions have been amazingly creative. During the past semester, one student suggested taking a new approach to the design problem. Jared Pelley (Senior in Technology Education) recommended that students develop the device to allow a person without hands to play table tennis instead. Dr. Brusic took Jared's suggestion and modified the design problem for her summer 2011 class. As a result, students will be testing their "Ping-Pong Prosthetic" designs in June during a class tournament. They will also be visiting Hanger Prosthetics (Elizabethtown, PA) to learn more about prosthetic design from the experts as they develop their solutions to this engaging problem.



Note: Korbin Shoemaker (pictured) is a 2011 technology education graduate. He'll be starting his graduate work at Ball State University in fall 2011. Lucas Sandoe just completed his sophomore year in the technology education program.

New Equipment in the Department

Several of the labs in Osburn Hall saw new equipment installed during Spring 2011:

Energy/Power/Transportation: The EPT lab installed a renewable energy trainer to be used with classes starting in the fall. This trainer will provide students with experiences with solar and wind-driven power generation.

Automation Lab: The automation lab installed a new Festo brand fluid power trainer. This trainer went into service immediately on arrival.

Innovation Lab: The innovation lab received two new SawStop brand table saws to replace the aging Bridgewood table saw.

Production Lab: The production lab installed three new SawStop brand table saws. The two Delta and Oliver brand tablesaws were traded in.

Graphics Lab: The graphic communications lab installed a printability tester donated by Adhesives Research, Inc. in York County.

Millersville University
SEIZE THE OPPORTUNITY

The Department of Industry and Technology
PO Box 1002
40 East Frederick Street, Osburn Hall
Millersville, PA 17551
717/872-3316
<http://www.millersville.edu/itec>
itec@millersville.edu

Millersville University is an Equal Opportunity/
Affirmative Action Institution.
A member of Pennsylvania's State System of Higher Education

The **abbozzare** is a newsletter published
by The Department of Industry and Technology at
Millersville University of Pennsylvania.
All information is considered to be public domain,
and can be used freely for educational purposes.