As a special mission affiliate of Penn State, committed to applied technology education, Penn College offers PIRC clients access to:

- Industrial-scale process equipment and extensive material testing laboratories (valued at $2 million)
- World-class training programs (including customized, on-site training programs, workshops, online courses, and national seminars)
- Expert consulting staff, including members of the Penn College faculty
- Student interns and graduates (A.A.S. and B.S. degrees) that bring education and experience to the workplace
- Education and training for workforce development
- Process technology
- Custom compounding
- Testing and analysis
- Material selection
- New product development
- Process troubleshooting to the streamlining of manufacturing operations.

GUEST PRESENTERS

The course content is ably supported and co-presented by Jerry Ramsey of Akro Plastics, Kent, Ohio, specializing in molding techniques and pressure application during molding; Terry Gilliom of Paladin Sales, providing the EZLogger temperature measurement system for process control; and Eric Musters, Technical Applications Development Manager for Total Petrochemicals Research & Development, presenting the latest developments in the world of advanced materials for rotational molding.

“The course was great thanks to the awesome facilities, instructors, and very informative hands-on training. I am a better roto-molder after this course.”

Brock Snyder, Akro Plastics, Kent, OH

“Excellent and supportive staff. A good team of people concerned about us getting the knowledge we expected.”

Daniel Ruiz Amelanes, Laerdal, Guadalajara, Mexico

“A tremendous combination of classroom interaction and real-life hands-on experience. Highly recommended for anyone that wants to have a good working knowledge of rotational molding.”

Larry Whittemore, Stoner, Inc., Quarryville, PA

“Great course. I can’t wait to get back to work and share the info. Would highly recommend this course.”

Corey Eystad, Rhino Inc., Maple Lake, MN

Dr. Paul Nugent is a native of Northern Ireland now living in Pennsylvania. He was educated at The Queen’s University of Belfast in Northern Ireland; he holds a Master’s of Engineering degree in aeronautical engineering and a Ph.D. in mechanical engineering. The subject of his Ph.D. work covered heat transfer and process variables in rotational molding. The course of his research developed the world’s first process control system for rotational molding (Rotolog) and also the first complete computer simulation (Rotoflame). After five years managing the Rotational Moulding Research Center at Queen’s University, he moved from the academic field into a management position in a rotational molding company in the United States where for six years he was responsible for production, engineering, and quality control. In 2001, he left to write a book on rotational molding entitled Rotational Moulding: A Practical Guide and has since offered his services in training and consulting to the industry on a worldwide basis. This enables him to travel extensively across six continents assisting clients in many roles from teaching to expert witness and from process troubleshooting to the streamlining of manufacturing operations.

Penn College is one of only five colleges in the nation offering degree programs accredited by the Engineering Technology Accreditation Commission of ABET:

A.A.S. – Plastics & Polymer Technology
B.S. – Plastics & Polymer Engineering Technology

Penn College graduates are in high demand for positions in manufacturing operations, process technology, supervision, research and development, product and machine design, and more. Companies employing Penn College alumni include Honda, Toyota, Sabic, DuPont, Tyco, General Motors, Graham Packaging, Akro, Truck-Lite, West Pharmaceutical Services, and General Cable.

Find out more about how you can develop a path for success in the plastics industry by visiting www.pct.edu/schools/icet.

Plastics Innovation & Resource Center
PIRC DEF 26
Pennsylvania College of Technology
One College Avenue
Williamsport, PA 17701
570-323-5533 • pirc@pct.edu • www.pct.edu/pirc • 570.320.5248 (FAX)

Dr. Paul Nugent
This workshop helps you recognize potential molding issues before they happen and the techniques to eliminate the issue if it does occur.”

Artur Bitner, Elkamet Inc., East Flat Rock, NC

Penn College is located in central Pennsylvania with easy access off Interstate 180, Maynard Street Exit 23. The Williamsport Regional Airport (IPT) provides commuter air service through Philadelphia. Free shuttle service is provided to and from the Williamsport Regional Airport and College from our preferred hotels, so a car rental is not necessary. Other airport options within two-hours driving distance include Harrisburg International (MDT) and State College (SCD), in which case you would need to rent a car. Free shuttle service is provided to and from the Williamsport Regional Airport (IPT) provides commuter air service through Philadelphia. Please wait to book a flight until you receive confirmation that the workshop will be held. Minimum enrollment must be met.

Hotel Reservations: The registration fee does not include hotel accommodations. Participants are responsible for making their own lodging arrangements. Registrants will receive a confirmation e-mail with information on hotel room blocks with discounted rates. Hotels book fast, so it is important not to delay in registering or booking your hotel.

CANCELLATION POLICY: Cancellations will be accepted and full refunds issued when notified at least one week prior to the class start date. Within one week of the class start date, the company is responsible for the full cost; company substitutions are permitted at any time.

The PIRC may cancel or postpone any course because of insufficient enrollment or other unforeseen circumstances. If a program is canceled or postponed, the PIRC will refund registration fees, but cannot be held responsible for any other related costs, charges, or expenses (including cancellation/change fees assessed by airlines or travel agents).

Penn College encourages qualified persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, please contact Disability Services at 570-321-5225, TTY 570-321-5788, or fax 570-321-4516 in advance of your participation or visit.

**REGISTRATION**

**Location:** Pennsylvania College of Technology, Breuder Advanced Technology & Health Sciences Center (ATHS), Room E140

**Dates & Times:** May 19 & 20, 2015,

Day One: 8:30 a.m. - 4:30 p.m.

Day Two: 8 a.m. - 4:45 p.m.

**$895, Register on Penn College website at:**
www.pct.edu/pirc/workshops.asp

Save by registering on the ARM website at:
www.rotomolding.org/events

**$845, Registrant (e-mail admin@rotomolding.org for login)**

**$795, SPE RM Member**

**$745, ARM Member**

Pre-registration required; includes course registration, handout material, morning refreshments, and lunch for two days. Registration is limited and on a first-come, first-served basis.

**Need more information?**
Call 570-321-5533

**WORKSHOPS**

1. Material Preparation and Testing

Demonstrate features of grinding equipment and process of producing rotomolding powders

Show how grinding parameters can influence quality of grind

Demonstrate methods of evaluating powder quality

2. Molding Parameters

Demonstrate benefits of a mold temperature measuring system

Demonstrate effects of internal mold pressure on cross-section and surface finish

3. Part Testing

Demonstrate low temperature (-40°F) drop-dart impact testing

Perform impact tests and calculation on under-cured, good cured, and over-cured parts

Review other test methods such as tensile, wall thickness, and density

4. Multi-Layer Molding and Advanced Materials

Classroom session on the range of materials available for rotomolding and new developments

Multi-layer molding session demonstrating two-layer solid and foam cross sections