

# ADVANCED SERIES OF NONWOVENS TRAINING COURSES

The Nonwovens Institute, NC State University,  
Raleigh, NC

**December 7-11, 2015**

The course will be held in NC State University, The Nonwovens Institute:  
1000 Main Campus Drive, Raleigh, NC 27606, College of Textiles Building, Suite 2418

## CAPSTONE COURSE ON NONWOVEN PRODUCT DEVELOPMENT AND INNOVATION

The course focuses on the nonwoven processes and products, intellectual property, the stage-gate process used in executing product development activities, design of experiments and the process of product development and innovation. Relationships between the structural properties of nonwovens and the production process are also covered. The course integrates the knowledge gained in all previous courses in the form of a hands-on product development course. Students may specialize in any two areas of the following studies: Wipes, Filters, Medical Products, Consumer Products, Industrial Products, or Durable Products.

A Bachelor of Science degree in engineering, textiles, or nonwovens is suggested to attend the course.

### Topics Covered Include:

- Stage-gate theory of product development and design of experiment
- Nonwovens market research, trends and costing
- Resolving product development issues
  - > Intellectual property
  - > Case studies
- Product team development
- Hands-on training in the NWI facilities
  - > Product planning
  - > Structure and performance requirements
  - > Product prototyping
  - > Testing and evaluation
- Team product presentation preparation
- Final product presentation

The course is designed for nonwoven professionals who are in product development, including areas:

- R&D professionals
- Manufacturing management and engineering
- Product development
- Technology scouts

**Instructor: Benham Pourdeyhimi, Ph.D.**, is The William A. Klopman Distinguished Chaired Professor of Materials in the College of Textiles at North Carolina State University. He is also a Professor in Chemical and Biomolecular Engineering. Pourdeyhimi is currently serving as the Associate Dean for Industry Research and Extension in the College of Textiles and is also the Founding Executive Director of The Nonwovens Institute.

His research interests are in the area of nonwovens, responsive fibrous systems, filtration, computational modeling, materials, failure mechanisms, software algorithms, optics, and image analysis. He has published several books and monographs, has authored or co-authored over 200 refereed publications, has more than 30 patents and has made over 200 presentations in his areas of interest.

**5 days, 4.0 CEUs**

**INDA/NWI Members: \$2,495 | Non-members: \$2,995**

Multiple registrants from the same company receive a discount.