



## Intermediate Nonwovens Training Course AGENDA

Instructor: Ed Thomas  
Head of Research and Product Development,  
First Quality, Fiberweb, (retired)

### Day 1: Tuesday

8:30 am	<b>Continental Breakfast</b>	INDA
9:00 am	<b>Introduction</b>	Matt O'Sickey, INDA
9:10 am	<b>Welcome</b>	Dave Nelson, NWI
9:20 am	<b>Program Preview</b> Video overview, nonwoven markets and product applications, information sources.	Ed Thomas, Instructor
	<b>The World of Nonwovens</b> "Hands-on" examination of nonwoven fabric and end-use product samples as a means to illustrate the wide range of nonwoven usage. Establishment of "Analysis Teams and Tasks."	Ed Thomas, Instructor
12:00 pm	<b>Lunch</b>	INDA
1:00 pm	<b>Nonwovens Technology Primer</b> Definitions of nonwovens, short history of the technical evolution of the industry. Description of basic nonwoven manufacturing principles and systems.	Ed Thomas, Instructor
	<b>Fiber Fundamentals</b> Generic types and characteristics, property comparisons, raw material-fabric property relationships.	Ed Thomas, Instructor
5:00 pm	<b>Reception and "Analysis Team Bonding"</b>	
6:00 pm	<b>Adjournment (evening on your own)</b>	



## Day 2: Wednesday

8:30 am	<b>Continental Breakfast</b>	INDA
	<b>Analysis Team Work and Discussion Session</b>	
9:00 am	<b>Web Forming Technologies – Drylaid Nonwovens</b> Analysis of carding and staple fiber airlaid systems. Review of background, process technologies and recent developments.	Dave Nelson, NWI
	<b>Web Forming Technologies – Wetlaid &amp; Short Fiber Airlaid Nonwovens</b> Development of wetlaid nonwovens based on paper technology. Unique characteristics of cellulose fibers in wetlaid technology. Development of short fiber airlaid nonwovens and comparison of short fiber airlaid nonwovens technology with wetlaid nonwovens technology.	Ed Thomas, Instructor
11:15 am	<b>Travel to Nonwovens Institute</b>	
11:45 am	<b>Nonwoven Institute Welcome</b>	Dave Nelson, NWI
11:55 am	<b>Web Forming &amp; Bonding Technologies – “Polymer to Fabric” Nonwovens</b> Basic principles associated with spunbond, meltblown and film-based nonwovens and the polymers used in their production.	Behnam Pourdeyhimi, NWI
12:45 pm	<b>Lunch</b>	Nonwovens Institute
1:30 pm	<b>Web Forming and Bonding Technologies (con’t)</b> Systems for Spunlaced/ Hydro-entangled nonwovens.	Behnam Pourdeyhimi, NWI
3:15 pm	<b>Staple &amp; Polymer Lab Discussion, Tours &amp; Demonstrations</b>	Dave Nelson, NWI
5:25 pm	<b>Adjournment (evening on your own)</b>	



## Day 3: Thursday

8:30 am	<b>Continental Breakfast Analysis Team Work and Discussion Session</b>	INDA
9:00 am	<b>Web Bonding Technologies I</b> Mechanical bonding principles and systems.	Ed Thomas, Instructor
	<b>Web Bonding Technologies II</b> Chemical and thermal bonding principles and systems.	
	<b>Nonwoven Fabric Finishing &amp; Converting</b> Principles, processes, and methods used to treat nonwoven fabrics to obtain enhanced physical and aesthetic properties for specific end-use.	
12:15 pm	<b>Travel to Nonwovens Institute</b>	
12:45 pm	<b>Lunch</b>	Nonwovens Institute
1:30 pm	<b>Nonwoven Fabric Test Methods &amp; Procedures</b>	Amy Minton, NWI
2:15 pm	<b>Test Methods</b> Overview of nonwoven test methods and standardization of test procedures.	
3:15 pm	<b>Test Lab Tours and Demonstrations</b>	Amy Minton, NWI
5:25 pm	<b>Adjournment (evening on your own)</b>	



## Day 4: Friday

8:15 am	<b>Continental Breakfast</b>	INDA
8:45 am	<b>Future Trends</b> Projection of future applications and developments in manufacturing materials, processes and products.	Behnam Pourdeyhimi, NWI
9:30 am	<b>Analysis Team Presentations</b>	Ed Thomas, Instructor
10:30 am	<b>Break</b>	
10:45 am	<b>Hot Topics</b> “Wipes Issues & Flushability and Plastics in the Environment”	Matt O’Sickey, INDA
11:15 am	<b>Nonwovens Markets Statistics, Trends &amp; Directions</b>	INDA
12:15 pm	<b>Lunch/Course Adjournment</b> Please exchange a completed evaluation for your certificate.	INDA