



**WIPES Academy**  
**Instructor: Rob Johnson, PE, Principal**  
**Smith, Johnson & Associates**

**COURSE AGENDA**

**Monday, June 4, 2018**

8:30 am Continental Breakfast

9:00 am Introductions

9:20 am **Section 1: Brief Overview of Wipes**

- What is a wipe?
- Early wipes
- Growth of wipes
- Wipe classifications
- Equipment evolution
- Desired characteristics
- Why use nonwovens in wipes
- Wipe elements

10:35 am Break

10:50 am **Section 2: Nonwoven Substrates for Wipes - Materials and Processes**

- What is a nonwoven?
- Wipes menu
- Raw Materials: fibers & adhesives
- Key process elements
- Control of fabric properties
  - Mechanical
  - Liquid
- Examples of key processes

12:15 pm Lunch



1:15 pm **Section 3: Liquid Ingredients A - Z . . . Anti-aging to Zinc Oxide**

- Most common liquid ingredients - special focus on:
  - Water
  - Preservatives
- Selected "Special" of the hundreds - A to Z
- Liquid logistics, mixing and delivery

2:30 pm **Section 4: Packaging Materials**

- Package types
- Nonwoven substrate format
- Closure types
- Tradeoffs

3:15 pm Break

3:30 pm **Section 5: Wipe Converting Processes: The "-ings"**

- Unwinding
- Slitting
- Web Handling
- Turning
- Wetting
- Folding
- Interfolding
- Cutting
- Stacking
- Packaging
- Rolling
- Perforating
- Inserting
- Wetting

4:45 pm Recap of the Day

5:00 pm Cocktail Reception



## Tuesday, June 5, 2018

8:30 am Continental Breakfast

9:00 am **Section 9: Wipes Markets and Data**

*Brad Kalil, Director of Market Research & Statistics, INDA*

- Latest INDA market research and insight

9:45 am **Section 11: Influential Issues, Regulations and Flushability**

- Regulations
- Registrations
- Certification programs
- Flushability  
*Jim Loftus, Ph.D., Director of Technical Affairs, INDA*
- Disposability

10:40 am Break

10:55 am **Section 6: Wipe Development & Manufacture - Bringing It All Together**

- Basic wipe development "skeleton" steps
- Raw material flows
- Nonwoven, liquids and packaging
- Flat-Pack line
- Canister line
- Case Study: Baby Wipes in North America, 1970 to Current

11:55 am Lunch

12:55 pm **Section 7: Cost Effective Production/Sustainability**

- General thoughts on sustainability as it pertains to wipes
- Product design drivers
- Logistics and materials efficiency
- Production related drivers



1:25 pm **Section 8: Quality, Stability, Recalls and Related Matters**

- Quality and stability imperative
- Philosophy
- Practice
- What can go wrong
- Protocols
- Quarantine
- Recalls

2:10 pm Break

2:25 pm **Section 10: Consumer/Customer Understanding**

- Quick review of conventional methods
- Comments on private label vs. branded business

2:50 pm **Section 12: Current "Hot topics"**

- Contemporary topics
- Open discussion

3:10 pm Group Exercise

3:40 pm Recap WIPES Academy

4:00 pm Course Adjourns

INDA's WIPES Academy is a two-day course devoted to the manufacturing, handling and treatment of nonwoven substrates used for disposable wipe applications. The course will begin with a discussion about the various materials and processes used to create wiping substrates for disposable consumer applications. Your training follows the substrate as it travels from the roll through the treatment and converting processes and ultimately the packaging process intended by its end-use. The course will also examine manufacturing concerns ranging from design drivers and preservative options to sustainability challenges and the latest in flushability advancements and government regulations. INDA's Director of Market Research and Statistics will provide market data, trends and a peek at the industry's future.