



## Case Study – Custom Courses

### INVISTA's Training Needs Met During Two-Day Course

#### At a Glance

Custom training at Hooke College of Applied Sciences pairs clients with experienced instructors. INVISTA scientists learned techniques that empowered them to get the most from their samples.

“Anna was just tremendous! Techniques and tips were more than I could take in. We could definitely have benefitted from even more training time. This was a very good experience for me.”

David Strickler, R & D Assistant, INVISTA

#### Situation

INVISTA is one of the world's largest integrated producers of polymers and fibers. With a business presence in over 20 countries, their products are found in everything ranging from clothing and carpets to cars and computers. As a leader in innovations and developments in nylon, spandex, polyester, and specialty materials, INVISTA relies on efficient and accurate research processes.

INVISTA has collaborated with the experts of McCrone Associates for over 20 years using professional microanalysis to help solve some of their biggest challenges. The extensive array of microanalytical tools at McCrone Associates, along with our staff's expertise, has been an integral part of INVISTA's problem solving approach. INVISTA came to Hooke College looking for procedures to better prepare samples and improve their research capabilities.

#### Issue

A project leader and senior analyst at McCrone Associates identified approaches to problems and sample preparation techniques that would help INVISTA save time and reduce costs associated with routine analyses performed in their laboratories. After evaluating the client's needs, it was determined that a combination of group training in various sample preparation techniques and offering more specialized training individually in analysis techniques would best serve the client. Significant instructor-guided hands-on time was important to INVISTA, as they did not want to spend the majority of their training time in lecture. In addition, the client needed an option that allowed for flexibility during the training process to address issues as they evolved.

#### Solution

The Hooke College instructors involved in this project have over 50 years of combined experience. A two-day custom course was developed to meet the exact needs of the client. A full day was spent covering the essential elements of microscopic particle handling, sample preparation techniques, and the making of microtools. While one scientist spent another full day learning additional advanced sample preparation techniques, a second scientist learned about fiber characterization and the use of a hot stage as relevant specifically to INVISTA practices and objectives.

“Great hands-on, practical experience combined with background fundamental details. I really enjoyed getting to meet and interact with the scientists.”

Steve Pardini, R & D Fellow, INVISTA



A Hooke College student practices particle handling.

**“The instructor, the wonderful facility, and the staff were great. This is one of the best classes I have ever attended—packed with information and knowledge.”**

**David Strickler, R & D Assistant, INVISTA**

The instructors introduced advanced methods for analysis, including IR spectroscopy, collecting data, examining spectra, and scanning electron microscopy/energy dispersive X-ray spectroscopy applications, for INVISTA. The training included advice on laboratory set-up, suggestions for instrument and equipment acquisition, and recommendations for protocols for managing complex samples. Benefitting from the knowledge and expertise of the Hooke College of Applied Sciences instructors, the client gained confidence and proficiency in isolating deposits and characterizing their samples, thus increasing their accuracy and efficiency.

### Results

Through collaborative efforts prior to training, we were able to balance our expertise with INVISTA’s specific training needs to produce a custom training solution. Our client learned approaches to challenges that empowered them to better handle their samples.

Once the students gain proficiency in these techniques, they are able to quickly address problems as they occur, minimizing downtime and increasing efficiency. Since the students have familiarity with the raw materials and processes used in their facility, they can effectively integrate these newly-learned techniques with their knowledge of the manufacturing process to help uncover information in their samples. The result was client training that has positioned them to save money and time for the company.

As a result of the relationships developed during this two-day custom course, INVISTA has expressed interest in returning to Hooke College of Applied Sciences for additional training, and will continue to send samples to McCrone Associates for projects requiring instrumentation resources, clean room technology, and the expertise housed in McCrone Associates.



Hooke College courses include extensive hands-on instrument time so that students can become proficient at newly-learned skills.



Students use state-of-the-art equipment in Hooke College’s laboratory classrooms.