

**One-Week Short Course on Uncertainty Quantification, Detail Syllabus**  
**Alexandria Validation Consulting, LLC**  
 Subject to Change as Appropriate

|                 | <b>Monday<br/>Day One</b> | <b>Tuesday<br/>Day Two</b>            | <b>Wednesday<br/>Day Three</b>         | <b>Thursday<br/>Day Four</b>                      | <b>Friday<br/>Day Five</b>   |
|-----------------|---------------------------|---------------------------------------|--|---|------------------------------|
| 08:00AM-09:20AM | Course Overview           | Intervals, P-Box, and Credal Set      | Response Surfaces via Polynomial Chaos | Statistical Inference Overview                    | Markov Chain Monte-Carlo     |
|                 |                           |                                       |  | Bayesian Inference                                |                              |
| 09:20AM-10:40AM | Probability Theory        | Dempster-Shafer, Fuzzy, and Hierarchy | Supplemental Margins                   |   | P-values                     |
|                 |                           |                                       |  | Neyman-Pearson Confidence                         | NP Hypothesis Tests          |
| 10:40AM-12:00PM | Interpreting Probability  | Dependency Issues                     | - Early start on workshop -            | Predictive Distributions and Tolerance Structures | - Early start on workshop -  |
| 01:00PM-05:00PM | WORKSHOP ONE              | WORKSHOP TWO                          | WORKSHOP THREE                         | WORKSHOP FOUR                                     | WORKSHOP FIVE                |
| 07:00PM-09:00PM | RECITATION                | RECITATION                            | RECITATION                             | RECITATION  | Long workshop, no recitation |