USV—Understanding Structural Verification

Short Course

Testimonials

Air Force Research Lab

"Great overall information. The final example on risk analysis was excellent, especially for managers!"

"Case history of FalconSats was very helpful. The highest value was in the approach to verification philosophy, big picture (vs.) the cookbook approaches."

"Great course for engineers! Great info! Thanks!"

"Excellent! Every test engineer should take this course."

"(The) class was great."

"This was an excellent course and provided me with an overview of structures."

"I liked the more mathematical/engineering based sections, but learned a lot from the tips and lessons learned sections."

"Good course (very interesting and insightful). Good book (covers a broad list of topics). Good instructor (knew what he was presenting and got key ideas across)."

"I found the stories of what went wrong and lessons learned to be the most useful. Also, the analysis activities & the critical thinking skills needed for structural verification were very useful. Thanks!"

NASA Johnson Space Center

"Excellent examples were provided throughout the course on best practices for each area of design and analysis. Super job!"

"I think this content should be mandatory for spacecraft development team members regardless of discipline."

"Instructor was excellent—great examples, related well to NASA engineering environment, very knowledgeable!"

"Very good course. Much will be useful in the future for me. More people need to see this!"

"Teacher was knowledgeable and enthusiastic and a good communicator. Enjoyed referenced to "real" hardware--case studies.

"Very mature course materials. Excellent presentation skills. Great job!"

USV Testimonials

"I am in a position where I am reviewing test documents conducted 10 years ago. I found this course very useful."

"An instructor with extensive background made it very easy to discuss details of items."

"The review at the beginning of each day was time well spent. The quality of the class notes is high."

"Great review of structural testing and risk assessment."

"This course will benefit my structures understanding."

"Great for overview and refresher for project/program types and supervisors."

"If your system has hardware that flies in space, you need this course."

"It would have been nice to know several years ago!!"

"This is the perfect course to open the bounds of your understanding regarding structural verification of space flight hardware."

"Good course. Lots of information. Good for people who need to work with structural engineers, like project engineers and project managers."

"Good fundamentals course for anyone doing H/W development."

"It is a great overview for new hires and a good refresher for senior managers."

"Very strong introduction to structural verification fundamentals."

"Excellent class. Well worth the time spent."

"It's a good course with a lot of useful information."

"Highly recommended!"

"Offer more classes like this."

"All system engineers should take this course."

Scitor

"Great job, Tom!"

"Good class."

"Very good overview."

"More people need to take it."

"The instructor used layman's terms …to teach the subject."

"Thanks for all the examples and presenting all the concepts so well. Hardware contractors should be taking this course!"

USV Testimonials

"This course gave me an understanding (or better understanding) of what questions to ask contractors regarding structural verification. The course book/text will be a great general reference for structural verification."

"I enjoyed the review of many mechanical engineering principles and the relationship to requirements and testing."

"By the end, I noticed my vocabulary had increased (I could understand the questions). This info should help me as I work with the R&D techies that don't have much mission experience and want to get their experiments in space. I did have to dust off my old physics concepts. The demos with the spring & mass helped."

"Great course. Thanks."

"The stories and examples were great."

"Excellent use of examples both real world and text book. Experience of instructor was vital to course success."

"Well taught! Provided a much needed foundation."

"Excellent course!"

"I now have a much better understanding of (structures) terminology."

"Tom is very informative, has a lot of insight into a lot of programs, and is very knowledgeable."

"Great coverage to all levels: technician, engineer, etc. Will recommend to others."

"Both instructors were able to provide real life experiences to all aspects of course. You were able to adapt to individuals in the course and tailor it to our expertise. Excellent course."

"The real world test/test failure examples were great and very helpful."

"Very well thought out course."

"I thought the combination of theory, math, sample problems, and lessons learned from actual programs/applications was extremely insightful."

"This course helped me understand what a contractor should be doing in the factory before they ship the SV to the Cape."

Most interesting or useful:

- "Posing questions prior to giving answers—forcing us to try and apply the knowledge. Promotes comprehension."
- "Focus on systems engineering throughout, regardless of topic or discipline."
- Apples-to-apples comparison."
- "Verification planning and the inter-relationship/dependence between analysis and test."

USV Testimonials

- "Risk assessment and probability of failure. Difficult to use in our risk-averse environment, but an interesting tool to use for decision making."
- "The basic overview of structural verification … and more effective ways of assessing launch risk!"
- "Designing an effective test."

Other organizations

"Excellent course, Tom. Perfect in breadth and depth. Well presented, well organized."

"Did a good job tailoring generic course to our specific needs."

"Good course – instructor has extensive knowledge and can adapt to interest and questions of students."

"Tom gets it. He knows what is important and does a fine job of communicating in easily understood terms."

"Highly recommended for system engineers who need to understand the structure verification enough to question analysis and weigh in at program milestones."