What is NASA Academy of Aerospace Quality (AAQ)?

The NASA Academy of Aerospace Quality (AAQ) is an online platform for quality assurance training for academics, students, and commercial space service providers involved in aerospace research, technology development, and payload design, development, and deployment.

The Academy, through its open access website, provides special content for Atmospheric Balloons, Cubesat and other Small-Satellites types of projects.

The AAQ Curriculum

The NASA Academy of Aerospace Quality is built around a curriculum consisting of 50 quality assurance topics, covering the entire life-cycle of a payload project.

Different curricula will be available to focus in Atmospheric Balloon and Cubesat type of projects among others.

Access to NASA Standards

Search and query over 350 NASA standards that might be relevant to your project using our NASA Standard Search App.

Plan and Repository

A quality assurance plan allows your team to document the best practices that will be put in place to assure the quality (and success) of your project. Using our site you can create a plan.

Material Control:

- Control of Foreign Object Debris (FOD)
- Electrostatic Discharge
- Fracture Critical
- Cleanliness / Contaminat

Design:

- Failure Mode and Effects Analysis
- Continuous Improvement
- Problem Solving
- Hazard Analysis

Implementation:

- Part Selection, purchasing and Procurement:
  - Supplier Audit
  - Acceptance Data Package
  - Commercial Off-the-Shelf (COTS)
  - Plastic Encapsulated Microcircuits (PEMs)
  - Micro-Electrical-Mechanical Parts (MEMs)

- Part Assembly:
  - Soldering
  - Wire Crimping and Harness
  - Stacking, Bonding and Conformal Coating
  - Connectors
  - Fasteners

- Safety:
  - Flammability
  - Process Control
  - Calibration

Testing:

- Inspection and Testing
  - Non-Destructive Evaluation (NDE)
  - Laboratory Testing
  - Statistical Quality Control
    - Mechanical Properties
    - Chemical Composition
  - metrology
  - Regression Analysis
  - Inferential Statistics
  - Statistics with Excel
  - Design and Analysis of Experiments (DOE)
  - Control Charts and Process Capability

Before you Start:

- NASA's Quality Program
- Systems Engineering
- Configuration Management
- Documentation Management
- Standards ISO9001/AS9100/AS9003

Contact Us!

We are constantly looking for feedback on the usability of our site. If you have any questions or suggestions, feel free to contact us!

NASA Academy of Aerospace Quality

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Learn from Others

You can learn from the experiences of other Cubesat community members through case studies, forums and over 200 lessons learned taken directly from NASA's lessons learned databases.

Join our community of users and share your experiences in our Annual Workshop.

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Use one of our Expert-Designed templates!