



Core Certification Competencies

- Introduction to Aerospace
 - Regulations and Controls
 - Clean Room, Contamination and FOD
 - Ethics
 - Quality Assurance and Quality Control
- Aerospace Safety
 - Toxic and Hazardous Substances
 - Personal Protection Equipment
 - Hazardous Materials
 - Emergency Plans and Fire Prevention
 - Platforms
 - Occupational Health and Environment
 - Walking Surfaces
- Applied Mechanics
 - Machine Shop Safety
 - Non-Cutting Hand Tools
 - Cutting Hand Tools
 - Drill Presses, Twist Drills, Drilling Speeds and Feeds, Drilling Holes
 - Basic Measurement
 - Basic Calculations (Metric to Standard, Ratios, Volume, Area, Dimensions)
 - Micrometers
 - Calipers
 - Hardware and Materials Identification
 - Blueprint Reading and Interpretation
 - Interpret Technical Drawings and Schematics
- Basic Electricity
 - Electric Safety
 - Metric Notation
 - Atomic Structure
 - Resistors
 - Switches
 - Schematic Reading
 - AC/DC Circuits
 - Theory
 - Laws
- Materials and Processes I & II
 - Metallurgy
 - Metallurgical Processes
 - Mechanical Behavior
 - Conventional Mechanical Testing
 - Corrosion
 - Corrosion Forms, Causes, Prevention
 - Corrosion Control
 - Non-Metallic Materials
 - Composite Materials



- Structural Characteristics
- Solid Core Structures, Molds, Moldless Wet Lay-up Techniques
- Hollow Structures and Mold Making
- Vacuum Bagging

- Test and Measurements
 - Inspection Requirements and Planning
 - Accuracy, Precision and Tolerances
 - Mechanical Measuring Inspection
 - Mechanical Surface Plate Inspection
 - Electrical /Electronic Measurements
 - Electrical Pressure/Flow/Temperature Measurement
 - Force/Strain/Torque/Vibration Measurement
 - Non-Destructive Examination
 - Surface Flaw Inspection
 - Delamination Inspection
 - Electromagnetic Techniques
 - Radiographic Techniques