



Course M-8/R-11

Advanced Composite Drawing Interpretation

Course Summary

This three-day course is designed for engineers, technicians, mechanics, inspectors, or anyone else responsible for designing, fabricating, repairing or inspecting advanced composite structures.

This course provides instruction in advanced composite drawing principles; reading and interpreting technical drawings used in manufacturing, production, and repair of advanced composite products.

This course is only available onsite at customer locations only.

Introduction

Much emphasis is placed on the similarities of composite drawing standards used throughout the industry. Students will learn the basics of drawing layout, the importance of notes, parts lists, applications lists, and where to find other pertinent information related to panel layup and/or assembly information. Attendees will also learn to interpret cross sections, ply definition diagrams, ply tables, and basic orthographic projection principles that are essential to reading composite drawings. In addition to topic lectures, students will be provided actual composite drawings and participate in hands-on drawing interpretation exercises that are designed to progressively enhance their print reading abilities.

Topics

Key Lecture Topics:

- Basic drawing format/layout; notes, material list symbols, title block.
- Geometric dimensioning and tolerance (G.D. & T.) in accordance with ASME Y14.5M-1994.
- Interpretation of drawing views: plan views, sections, details, tabulation, and orthographic projection.
- Material designation, material callouts, notes list.
- Ply definition diagrams and ply tables.
- Core ribbon direction, core callout, part numbering.
- Introduction to ply-shorthand code.

Workshop Exercises:

- Drawing interpretation exercises using actual composite drawings.
- Exploration of parts lists, application lists, notes, and views on the field of the drawing.
- Interpreting 1st angle orthographic projection Vs. 3rd angle projection drawings.

Course Benefits

The student will learn fundamental drawing practices for constructing and interpreting advanced composite drawings used in design, manufacturing and repair.

Prerequisites

M-1/R-1 or equivalent is suggested but not required

Teaching Method

Active classroom lecture and print interpretation exercises

CEU

2.0