



Composites Competencies

Characteristics of Composites

- Demonstrate knowledge of the characteristics of composite materials
- Demonstrate knowledge of fibers and uses
- Demonstrate knowledge of a matrix
- Identify the characteristics of fiber/matrix interfaces

Fabrication Methods

- Demonstrate knowledge of the methods of vacuum bagging
- Demonstrate knowledge of resin transfer molding
- Demonstrate knowledge of sheet molding compound
- Demonstrate knowledge of release films
- Demonstrate principles of operation of a Platen Press
- Identify the characteristics of filament winding
- Demonstrate knowledge of pultrusion methods
- Demonstrate knowledge of the use and characteristics of the autoclave process
- Differentiate characteristics of joining and bonding
- Demonstrate knowledge and characteristics of cohesive bonding
- Identify proper methods of surface treatment
- Identify and demonstrate knowledge of the types of fasteners
- Demonstrate knowledge of proper hole sizing
- Identify the correct methods for drilling holes
- Identify the proper equipment required for fastener installation
- Demonstrate knowledge of repair methods and tools

Testing, Inspection, & Repair

- Demonstrate knowledge and characteristics of non-destructive testing techniques
- Demonstrate knowledge and characteristics of destructive testing techniques

Health & Safety

- Demonstrate knowledge and understanding of MSDS forms
- Demonstrate knowledge and understanding of personal safety
- Identify various personal safety equipment
- Demonstrate knowledge of the proper disposal of materials