

# FAA CSET/CMfgT Hands-on Lab

## OCTOBER 1, 2024

National Center for Aviation Training | 4004 North Webb Rd. Wichita, Kansas

**8:00 AM Room# M145 Composites Lab**

**Hands on Lay-up and Bagging Projects**

1. Composites lab tour
2. Ply cutting demonstration with kit sheet explanation
3. Ruler fabrication
4. Sandwich panel fabrication

**12:00 PM Lunch on your own**

**1:00 PM Room# M145 Composites Lab**

**Bonded Repair Laboratory Session**

1. Introduction to repair of composite structures
2. Demonstration of repair and maintenance concepts with example parts
3. Composite repair scarfing demonstration
4. Laminate prepreg repair
5. Sandwich wet lay-up repair

**5:00 PM Day 1 Adjourn**

## OCTOBER 2, 2024

National Center for Aviation Training | 4004 North Webb Rd. Wichita, Kansas

National Institute for Aviation Research (WSU campus) | 1845 N. Fairmount, Wichita, Kansas 67260

**8:00 AM Room# M145 Composites Lab**

**Debagging of Composite Parts**

1. Debag parts from Day 1
2. Processing Methods
  - 2.1 Considerations for material selection
  - 2.2 Curing Methods
  - 2.3 Applying Vacuum
  - 2.4 Oven and Autoclave Curing
3. Key Processing Parameters
  - 3.1 Time
  - 3.2 Pressure
  - 3.3 Vacuum
  - 3.4 Temperature
4. Lay-up of curved sandwich panel

**10:00 AM Room# M150/M151/M153 Coatings Labs**

**Paint and Coatings Lab**

1. Paint application overview and virtual paint activities
2. Solar reflectance demo, environmental conditioning and common failures
3. Hands on demonstration

**12:00 PM Lunch on your own**

**1:00 PM NIAR Room# 107**

**Compression After Impact (CAI ASTM D7136/7137)**

1. CAI coupon manufacture, quality control and dimensioning
2. CAI coupon impacting and coupon NDI
3. CAI coupon instrumentation (Qty: 4 uni-axial strain gauges)
4. CAI mechanical testing

**5:00 PM Lab Adjourn**