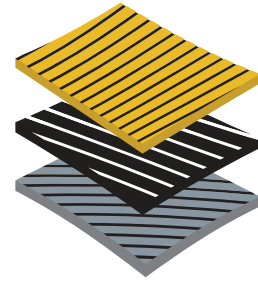


Attending SAMPE 2011 Long Beach?

HELIUS: COMPOSITEPRO

Learn How to Design Using Composites



Class Information:

When: May 25, 2011

1:30 - 5:00 p.m.

Where: Courtyard by Marriott Downtown Long Beach Hotel

(2 blocks from SAMPE Convention)

Cost: \$299/person

> **Bring a business partner/colleague, receive \$50 off per person**

> **Buy CompositePro within 7 days of the class, get \$100 off**

If you are interested, contact us at sales@firehole.com or 1.307.460.4763 ext. 202. Please contact Firehole prior to making your travel and lodging plans.

Class Syllabus:

- ▶ What is a Composite?
- ▶ Basic Composite Design
 - Micromechanics
- ▶ Rotation of Lamina, Global Properties
- ▶ Laminates – Stacking Up Plies
 - The “ABDs” – Coupling, etc.
 - Laminates With Cores
- ▶ Building And Loading Laminates Using Composite Pro
- ▶ Failure Theories
 - First Ply Failure, Progressive Failure, etc.
- ▶ Pressure Vessels
- ▶ Beam Analysis
 - Bending, Vibration, Strength and Buckling
- ▶ Plate Analysis
 - Bending, Vibration, Strength, Buckling, Core and Face Sheet Stability Pressure Vessels
- ▶ Composite Pro Utilities:
 - Winding Calculator, Volume/Wt Fraction, Fabric, Thickness Calculator, Roving Thickness Calculator, Radius of Curvature, Laminate Survey
- ▶ Design Exercise
- ▶ Optional:
 - Bonded Joints
 - Efficiency
 - Joint Selection/Design
 - Potted Inserts

The class will be held at:

Courtyard by Marriott
500 E. 1st St.
Long Beach, CA
562.435.8511

Local Area Info:

- 2 blocks from Long Beach Convention Center

About the Instructor: DeWayne Howell



DeWayne has 25 years of technical experience in the field of composite structures and analysis. He is the original developer of CompositePro. He has worked for NASA, Alliant Techsystems, Advanced Composites Technology, CompositeTek, and currently Peak Composites. DeWayne has lead and participated with teams of engineers in the

design, analysis and development of many composite structural applications that include: pressure vessels, drive shafts, fixed and rotary wing aircraft, and even a custom line of golf shafts. DeWayne holds a B.S in Aerospace Engineering from the University of Cincinnati.

Bring your laptop and we'll provide you with a 7-day, fully functional demo of CompositePro for use during the class and for you to explore at home/office.

Contact Information:

sales@firehole.com
307.460.4763 ext. 202
www.firehole.com