

Posting Title: Research Assistant – Thermoplastic Composite Infusion Winter/Spring 2025

Anticipated Start Date: January 6, 2025

Estimated Pay: \$16.00 per hour

Number of Jobs Available: 1

Schedule: Mon-Fri., hours flexible based on class schedule

Location: Composites Manufacturing Science Lab

Job Advertisement Summary:

The Center for Composite Materials invites highly motivated graduate students curious and interested in learning experimental techniques to join our team and gain hands-on experience in thermoplastic composites research.

About:

The Center for Composite Materials is an internationally recognized, interdisciplinary center of excellence for composites research and education. The research conducted at CCM varies from fundamental science to applied engineering involving multidisciplinary skills from basic physics and chemistry to mechanical, materials science and chemical engineering.

Primary Responsibilities:

This research position involves performing hands on experimental research in the area of thermoplastic composites processed via vacuum infusion.

- Cutting fabric, bagging, and vacuum infusion of flat panels, as well as post-curing these panels.
- Preparing test coupons using a surface grinder, applying tabs, and painting speckle patterns.
- Conducting mechanical tests utilizing 3D digital image correlation (DIC).
- Performing thermal analyses using equipment such as TGA, DSC, TMA, DMA, and LFA.

Qualifications:

- Fundamentals of physics, chemistry, and engineering
- Familiarity with Excel, Matlab or Mathematica
- Attention to detail, meticulous at doing hands-on work in the lab
- Curiosity and interest in learning experimental techniques

This position offers the opportunity for training in the processing of thermoplastic composites via vacuum infusion, as well as in the use of standard materials characterization equipment, including thermal analysis (DSC, TGA, DMA), optical and electron microscopy techniques, and mechanical testing in accordance with ASTM standards.

Be part of a world class research organization and build your future today!

To apply, send your resume and cover letter to Sai Aditya Pradeep at spradeep@udel.edu by November 30, 2024.