TITLE: Engineer III – Thermoplastic Composites

DEPARTMENT: Advanced Structures and Composites Center

DATE:

REPORTS TO: Engineer VI

Purpose: The purpose of this position is to manage and conduct a variety of testing and R&D projects related to design, development and testing of composites. Also to develop proposals for federal, state, and industry-funded R&D and demonstration programs, in cooperation with industry partners.

Essential Duties & Responsibilities:

Scope:
- Conducts managerial duties in keeping research project on time and meeting objectives
- Designs, manages and supervises engineering analysis, design and testing aspects for a variety of R&D projects
- Recommends and designs tests to be conducted to fit the client’s needs
- Manages manufacturing process development
- Reviews processing methods and materials and develops and implements improvements
- Develops and writes work instructions and executes drafts as required
- Participates in providing weekly, quarterly and monthly progress reports to the program manager as well as to clients and sponsors
- Writes industrial contract proposals and proposals for grants and other contracts
- Writes patent applications
- Writes and approves interim and final reports to clients and sponsors
- Creates presentations of research and testing results and writes technical reports and papers for journals, periodicals, conferences, clients, sponsors and team members
- Develops and maintains updated Gantt charts for projects

Impact:
- Provides and reviews monthly progress reports to the program manager as well as to clients and sponsors
- Position responsibilities and decisions toward final results impact the direction and/or success of the project or research funding.
- Available guides or precedents are limited in decision making and errors are not typically apparent.

Contacts:
- Instructs and advises professional and classified staff as well as undergraduate students referencing testing and execution techniques.
- Communicates with vendors to establish purchase specifications for research and testing materials, non-capital equipment and capital equipment
- Participates in conference calls, visits, and meetings with subcontractors, clients and sponsors
• Has significant impact on the public image of the university because external relations with clients and industry partners. If issues or problems arise, the positive or negative consequences are likely to become widely known (internally and externally) and materially affect the reputation of the university.

Authority:
• Supervises and guides a team of graduate research assistants and undergraduate student lab assistants
• Assists and instructs multiple graduate and undergraduate students in area of expertise
• Advises and assists graduate students in completing, executing and planning R&D projects
• Coordinates teams and assigns tasks for completing research program plans
• Provides safety and environmental management supervision and advice for graduate and undergraduate students

Fiscal Responsibility:
• Monitors (reviews and checks for accuracy) program budgets totaling up to or exceeding $1M
• Researches, recommends and determines specifications for purchase of minor non-capital equipment, materials and supplies for use in research projects
• Analyzes (critically review budgetary data) program budgets totaling up to or exceeding $750K and recommends spending dollars accordingly
• Administers (forecasts and controls spending) program budgets totaling up to or exceeding $150K and determines spending accordingly

Perform other reasonably related duties as assigned.

Knowledge & Skill Qualifications:
• M.S. in related Engineering field with three years of relevant experience in a professional or academic research environment or an equivalent combination of education and experience is preferred.
• Experience in the following areas is required: Manufacturing of Thermoplastic and Thermoset Composites, Advanced Composites, Process Engineering, Thermoforming.
• Significant experience in CAD software including SolidWorks, Catia and similar programs is preferred.
• Excellent oral and written communication skills required.
• Experience advising and directing student research desired.
• Demonstrated ability to manage multiple projects and meet constant deadlines required.
• Demonstrated ability to interact with industry partners required.

Position Type: Contingent on funding and successful performance.

Work Schedule: Normal University of Maine business hours are Monday through Friday 8:00 a.m. to 4:30 p.m. Due to the nature of the position, work beyond regular hours (to include evenings and weekends) will be necessary to meet the requirements of the position. The employee shall establish regular office hours and in consultation with the supervisor, adjust the work schedule as appropriate.
**Work Environment:** Work will be performed at the Advanced Structures and Composites Center 87,000 ft² laboratory with a world-leading team of over 150 faculty, staff and students who conduct contract research with a variety of public and private entities developing the next generation of low-cost, high performance composite materials.

**Schedule for Evaluation:** In the initial six months of employment and annually thereafter in accordance with the UMPSA agreement.

**Salary:** This position is in Salary Band 5, Job Family 7

The finalist for this position must successfully complete a pre-employment physical.

All UMS employees are required to comply with applicable policies and procedures, as well as to complete applicable workplace related screenings, and required employee trainings, such as Information Security, Safety Training, Workplace Violence and Sexual Harassment.

Appropriate background checks will be required.