

Wichita State University - Research Engineers - Job ID #82696 in
Wichita, Kansas

DUTIES: Independently interprets, organizes, executes, and coordinates research assignments in a field or specialization of an engineering discipline. Formulates and conducts research on problems of considerable scope and complexity. Explores subject area and defines scope and selection of problems for investigation through conceptually related studies or series of projects of lesser scope. Essential Function 1 Interprets, organizes, executes, and coordinates engineering research assignments concerned with unique or controversial problems. Specifically, performs custom testing for customers (i.e. tensile, compression, fatigue, hardness) on metals, polymers, and composites per American Society for Testing and Materials/International Organization for Standardization (ASTM/ISO) standards. Interprets results and makes recommendations from test data. Responsibility 1 Research, design, evaluate, install, operate, or maintain mechanical products, equipment, systems or processes to meet requirements. Loads and extracts data/information from Lab Information Management Systems (LIMS). Works with thermal testing data; chemical testing data; and mechanical testing data (tension, compression, shear, bearing, flex), as well as the associated ASTM test standard requirements. Responsibility 2 Investigate equipment failures or difficulties to diagnose faulty operation and recommend remedial actions. Responsibility 3 Analyze project requests, proposals, or engineering data to determine feasibility, productibility, cost, or production time of aerospace or aeronautical products. Essential Function 2 Applies diversified knowledge of engineering research principles, practices, and protocols in research projects; makes recommendations and conclusions which serve as the basis for decision making in a specialty area. Responsibility 1 Conduct research that tests or analyzes the feasibility, design, operation, or performance of equipment, components, or systems. Responsibility 2 Perform personnel functions, such as oversight of production workers, technicians, technologists, or other engineers. Essential Function 3 Formulates and conducts systematic problem analysis and resolution in an area of considerable scope and complexity through series of complete and conceptually related studies, or through a variety of projects of lesser scope. Responsibility 1 Assist drafters in developing the structural design of products, using drafting tools or computer-assisted drafting equipment or software. Responsibility 2 Specify system components or direct modification of products to ensure conformance with engineering design, performance

specifications, or environmental regulations. Responsibility 3 Plan or conduct experimental, environmental, operational, or stress tests on models or prototypes of aircraft or aerospace systems or equipment. Essential Function 4 Receives administrative supervision, with assignments given in terms of broad general objectives and limits. Responsibility 1 Apply engineering principles or practices to emerging fields, such as robotics, waste management, or biomedical engineering. Responsibility 2 Establish or coordinate the maintenance or safety procedures, service schedule, or supply of materials required to maintain machines or equipment in the prescribed condition. Essential Function 5 Develops model concepts and approaches as an individual researcher and acts independently on technical matters. Responsibility 1 Develop or test models of alternate designs or processing methods to assess feasibility, sustainability, operating condition effects, potential new applications, or necessity of modification. Responsibility 2 Maintain records of performance reports for future reference. Essential Function 6 Collaborates with users and principal investigators on design, analysis, application, and reporting of research projects; provides technical leadership and technique consultation. Responsibility 1 Confer with engineers or other personnel to implement operating procedures, resolve system malfunctions, or provide technical information. Responsibility 2 Plan or coordinate investigation and resolution of customers' reports of technical problems with aircraft or aerospace vehicles. Essential Function 7 Prepares analyses, reports, and other documentation for publication; presents findings at local, national, and/or international meetings. Prepares, or assists with the preparation of, materials for grant proposals to obtain funding in support of research activities. Responsibility 1 Provide feedback to design engineers on customer problems or needs. Responsibility 2 Write technical reports or other documentation, such as test plans, Statement of Work (SOW), and data reports. Essential Function 8 Serves as investigator on single or multiple projects of complexity and scope consistent with above criteria, and/or oversees a research unit. Maintains currency of knowledge with respect to relevant state-of-the-art technology, equipment, and/or systems. Responsibility 1 Direct or coordinate activities of engineering or technical personnel involved in designing, fabricating, modifying, or testing of aircraft or aerospace products. Provides guidance to Research Associates.

MINIMUM REQUIREMENTS: Bachelor's Degree in Mechanical Engineering, Aerospace Engineering, Industrial Engineering, or a related STEM field. Two (2) years of experience working in a

research laboratory with the following: loading and extracting data/information from Lab Information Management Systems (LIMS); working with thermal testing data; chemical testing data; and mechanical testing data (tension, compression, shear, bearing, flex); as well as the associated ASTM test standard requirements. Demonstrated ability to read, comprehend, and write technical documents such as test plans, SOWs, and data reports.

Reference Job ID and reply to: <http://jobs.wichita.edu/cw/en-us/job/499086?lApplicationSubSourceID=>