**Senior Mechanical Engineer**

**Definition of Class**
This is a non-supervisory position in which the incumbent is responsible for assisting researchers in the conceptual layout of more complex models, designing detailed drawings of approved model concepts, and interfacing with programmer and machinist during the fabrication. The incumbent interprets the American Society of Mechanical Engineering standards and applies them in the layout and design phase.

**Examples of Work Performed**
Manages complex design projects that involve technical and financial challenges; responsible for schedule, cost, and technical requirements.

Assists researchers in the conceptual layout of model/facility modification using CAD software and designed detailed drawings of approved model concept.

Interfaces with numerical machine programmer and machinist throughout the fabrication process.

Maintains departmental design records and archives project designs.

Analyzes task requirements including customer specifications, risk, schedule, and budget to formulate a design plan.

Researches prices for the procurement of all necessary materials and tracks all material and fabrication costs associated with each assigned task.

Performs Cost Account Management functions when necessary.

Designs, develops, and plans operations using CAD tools with third party packages for structural, vibrational, and heat transfer suitable application.

Works with machinists to inspect components and recommend necessary repairs.

Uses expertise of mechanical systems to resolve design issues and to establish success plans.

Follows projects in progress, completed projects, and maintains records of any progress.

Interpretsthe American Society of Mechanical Engineering standards and applies standards in the layout and design phase.

Adheres to the University Quality System.

Provides training and guidance to the Mechanical Engineer in meeting project objectives.

Performs similar or related duties as assigned or required.

**Essential Functions**
These essential functions include, but are not limited to, the following. Additional essential functions may be identified and included by the hiring Department.

1. Designs, develops, and plans operations using CAD tools with third party packages for structural, vibrational, and
heat transfer suitable application.

2. Provides training and guidance to the Mechanical Engineer

3. Researches prices for procurement of materials and tracks all material and fabrication costs.

4. Interprets the American Society of Mechanical Engineering standards and applies them to model layout and design.

Minimum Qualifications
These minimum qualifications have been agreed upon by Subject Matter Experts (SMEs) in this job class and are based upon a job analysis and the essential functions. However, if a candidate believes he/she is qualified for the job although he/she does not have the minimum qualifications set forth below, he/she may request special consideration through substitution of related education and experience, demonstrating the ability to perform the essential functions of the position. Any request to substitute related education or experience for minimum qualifications must be addressed to The University of Mississippi's Department of Human Resources in writing, identifying the related education and experience which demonstrates the candidate's ability to perform all essential functions of the position.

Physical Requirements: These physical requirements are not exhaustive, and additional job related physical requirements may be added to these by individual agencies on an as needed basis. Corrective devices may be used to meet physical requirements.

Physical Exertion: The incumbent may be required to lift up to approximately 50 pounds.

Vision: Requirements of this job include close vision and color vision.

Speaking/Hearing: Ability to give and receive information through speaking and listening.

Motor Coordination: While performing the duties of this job, the incumbent is frequently required to stand. The incumbent is periodically required to talk and hear. The incumbent is occasionally required to sit; walk; use hands to finger, handle or feel objects, tools or controls; climb or balance; reach with hands and arms; and stoop, kneel, crouch or bend.

Experience/Educational Requirements:

Education:
Bachelor’s Degree from an accredited four-year college or university in Mechanical Engineering.

AND

Experience:
Three (3) years of experience related to the above described duties.

Interview Requirements
Any candidate who is called for an interview must notify the Department of Human Resources in writing of any reasonable accommodation needed prior to the date of the interview.

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