**Senior Mechanical Engineer Standard Job Description**

**Classification Title:** Senior Mechanical Engineer

**FLSA Exemption Status:**Exempt

**Pay Grade:** 14

**Job Description Summary:**

The Senior Mechanical Engineer, under general supervision, organizes and delivers mechanical engineering support to the Operations and Science staff of the Cyclotron Institute.

**Essential Duties and Responsibilities:**

**40% Design and Procurement Support**

* Coordinates the design and procurement of components and systems to support staff.
* Prepares technical specifications and determines sources of supply.
* Evaluates bids for components and systems to ensure alignment with specifications.
* Acts as a liaison between suppliers and staff to ensure smooth communication.
* Maintains ongoing communication with other labs to meet design and equipment needs.
* Organizes and delivers support to the staff to ensure operational efficiency.

**20% Mechanical Design and System Evaluation**

* Prepares designs and specifications for complex equipment and systems.
* Evaluates mechanical system products and confirms their capabilities.
* Assures system and product quality by confirming fabrication, assembly, and installation.
* Provides mechanical and CAD support for operations and machine shop.
* Prepares part sketches and writes work orders and purchase requests.
* Reviews tool drawing designs and compares them with original specifications.
* Devises, fabricates, and assembles new or modified mechanical components.

**10% Supervision and Staff Guidance**

* Supervises student workers and provides direction to staff.
* Trains and guides operations staff in various technical tasks.

**10% Design Problem Solving and Planning**

* Assists in planning to solve design problems and recommends new design techniques.
* Resolves design issues with personnel and ensures compatibility with other system parts.
* Consults with operations staff on the development of plans and designs.
* Prepares layout designs to ensure accurate interpretation of specifications.
* Analyzes engineering sketches, specifications, and data to determine design factors.
* Develops 3D models and layouts for design review.

**20% Duty Title (for the department's use)**

* Remaining Percentage Can Be Determined by Department to Meet Business Needs or Can Be Incorporated into Percentages Above.

**Qualifications:**

**Required Education:**

* Bachelor’s degree in Mechanical Engineering or equivalent combination of education and experience.

**Required Experience:**

* Seven years of related experience in engineering, including particle accelerator engineering experience.

**Required Licenses and Certifications:**

* None

**Required Knowledge, Skills, and Abilities:**

* Ability to multitask and work cooperatively with others.
* Knowledge of general engineering design and project management.
* Strong verbal and written communication skills.

**Additional Information:**

**Machines and Equipment:**

* CAD Equipment

**Physical Requirements:**

* None

**Other Requirements and Factors:**

* This position is security sensitive
* This position requires compliance with state and federal laws/codes and Texas A&M University System/TAMU policies, regulations, rules and procedures
* All tasks and job responsibilities must be performed safely without injury to self or others in compliance with System and University safety requirements

**Is this role ORP Eligible? If so, it needs to meet the criteria on the** [**Rules and Regulations of the Texas Higher Education Coordinating Board**](https://reportcenter.highered.texas.gov/reports/data/user-friendly-version-of-ch-25/)**.**

**Yes**

**No**

**Does this classification have the ability to work from an alternative work location?**

**Yes**

**No** 