

**BOARD OF REGENTS  
STATE OF IOWA**

**REGENT MERIT SYSTEM**

**Class Title:** Research Technician

**Class Code:** 4501

**Pay Grade:** 413

**GENERAL CLASS DESCRIPTION:**

Under general supervision, performs technical work of a mechanical nature in support of research in the physical sciences such as, chemistry, physics, metallurgy, and ceramics. Work involves the operation and maintenance of specialized scientific research equipment. Provides technical assistance and training, as requested, to undergraduate and graduate students and other laboratory research staff.

**CHARACTERISTIC DUTIES AND RESPONSIBILITIES:**

1. Performs experiments and independently records data from complex laboratory equipment. Examines data with reference to the criteria standards, and/or requirements of a particular experiment or process.
2. Assembles, troubleshoots, repairs, modifies, installs, maintains, and operates specific laboratory equipment and apparatus. May design laboratory equipment and apparatus.
3. Provides technical assistance to hourly, undergraduate and graduate students, and research staff by providing information or clarifying and working out details of a specific experiment or process within the framework of established procedures.
4. Prepares and may instruct laboratory personnel in the preparation and processing of research samples for use in research studies.
5. Makes recommendations regarding the purchase of supplies, services, and instruments.

The tasks listed under the heading of Characteristic Duties and Responsibilities are examples of the variety and general nature of duties performed by employees in positions allocated in the class. The list is descriptive only and should be used for no other purpose. It is not intended that any position include every duty listed nor is it intended that related duties cannot be required.

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**KNOWLEDGES, SKILLS, AND ABILITIES:**

1. Skill in the operation and repair of laboratory equipment.
2. Skill in metallographic preparation and analysis.
3. Knowledge of metallographic procedures for cutting, polishing, etching, photographing, and physical characteristic measurements of metal/ceramic specimens.
4. Knowledge of general safety regulations and chemical hygiene.
5. Knowledge of the distillation process for pure metals.
6. Knowledge of metal joining techniques and related safety procedures.
7. Knowledge of mechanical and diffusion based vacuum systems, basic electronics, and mechanical aptitude.
8. Ability to operate microprocessor controlled process equipment and instruments.
9. Ability to perform mathematical calculations.
10. Ability to understand and execute oral and written instructions.
11. Ability to safely operate, repair and maintain standard and specialized research equipment.
12. Ability to collect data and accurately keep appropriate records.
13. Ability to work with chemicals.
14. Ability to lift and move up to 50 pounds on a regular basis.
15. Ability to perform hand-eye tasks in preparing samples.

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**MINIMUM ELIGIBILITY REQUIREMENTS:**

1. Four years of laboratory experience including operation and/or maintenance of specialized mechanical or electronic equipment, or
2. Graduation from a two year mechanical trade school and one year of related laboratory experience, or
3. Any combination of training and experience from which comparable knowledge and ability can be acquired.

**REVISION EFFECTIVE: March 1, 2003**