

**RESEARCH TECHNICIAN**

**Description of Work:** Positions in this banded class support experimental processes in a laboratory, clinic, field and/or teaching environment (hereafter referred to as “laboratory”). Work requires knowledge of applicable laboratory procedures, tests, techniques and terminology. The range of duties includes, but is not limited to: conducting experiments, collecting and summarizing data, and providing proper laboratory/study subject care. Employees at the journey and advanced levels may serve as a lead worker.

<b>Competency</b>	<b>Definition</b>
Knowledge – Technical	Achieves a high level of technical skill or knowledge in a specific technical area(s) and keeps up with current developments and trends in areas of expertise. May be acquired through academic, apprenticeship or on-the-job training or a combination of these. Technical knowledge is used to perform duties that include standardized or specialized procedures and includes the ability to safely operate instruments and equipment.
Operations – Research Support	Follows instructions through a standard work process; performs routine or repetitious tasks; checks work for accuracy before completion of tasks. Supports scientific research by assisting in experiments, procedures, and/or tests; work requires mental concentration, visual attention and extensive manipulative skills to comply with research protocol.
Data Collection	Observes, monitors, collects, and records data in order to assess accuracy, validity and integrity of data.
Laboratory/Subject Care	Provides care for study subject (i.e. patient, animal, crop) within research protocol, including maintaining optimal conditions to prevent disease and contamination; works with study subjects in an ethical manner.

## Definitions:

Test – A procedure in which the outcome is measured under various conditions.

Procedure – A sequence of actions that collectively accomplishes some desired task.

Experiment – The test of an hypothesis under controlled conditions.

Note: Competency statements are progressive and not all competencies apply to every position/employee. Evaluate only those that apply.

**Knowledge – Technical**

Achieves a high level of technical skill or knowledge in specific area(s) and keeps up with current developments and trends in areas of expertise. May be acquired through academic, apprenticeship or on-the-job training or a combination of these. Technical knowledge is used to perform duties that include standardized or specialized procedures and includes the ability to safely operate instruments and equipment.

<b>Contributing</b>	<b>Journey</b>	<b>Advanced</b>
1. Basic knowledge, skill and general understanding to perform standard duties related to the research.	1. General knowledge of applicable area of science to perform laboratory procedures and tests in support of research protocol.	1. Specific knowledge in area of science related to the research project(s) essential to perform a variety of procedures.
2. Knowledge and skills to use instrumentation and equipment.	2. Knowledge and skills to adjust and calibrate instrumentation and equipment as needed with limited supervision.	2. Knowledge and ability to independently operate instrumentation, equipment and/or software used for research objectives.
3. Knowledge of specialized software.	3. Knowledge of specialized software.	3. Knowledge of specialized software.

**Definitions:**

Terminology – The terms or systems of terms used in a specific science

Basic – Fundamental

General – Common or usual; not specific

Specific – Precise, definite; of a special or particular sort

### Operations – Research Support

Follows instructions through a standard work process; performs routine or repetitious tasks; checks work for accuracy before completion of tasks. Supports scientific research by assisting in experiments, procedures, and/or tests; work requires mental concentration, visual attention and extensive manipulative skills to comply with research protocol.

Contributing	Journey	Advanced
1. Prepares standard media, reagents, and chemical solutions used for testing purposes, and the physical processing of specimens prior to testing.	1. Conducts routine tests and procedures dictated by the research protocol.*	1. Performs and/or assists in specialized research procedures, tests, minor animal surgery and/or agricultural practices.**
2. Observes, measures and prepares subjects (patients, animals or crops) and tests variables as specified in the research protocol.	2. Assists in the layout and maintenance of subject environment.***	2. Independently prepares and maintains the layout of subject environment.***
3. N/A	3. Mixes and/or applies chemicals and/or other materials.	3. Calculates appropriate quantities of chemical(s) to ensure they are properly mixed and applied.

\* For example, prepares tissue samples for immunochemical analyses, makes pregnancy checks, assists in calving or furrowing, inoculates animals, selects pairs for routine breeding, and euthanasia.

\*\* For example, molecular and biochemical procedures, protein purification, in vitro enzyme analyses, artificial insemination procedures, and care of gnotobiotic animals.

\*\*\* For example, field plots, subject housing arrangements and benchwork; establish safety protocol including but not limited to updating/maintaining safety manuals.

**Data Collection**

Observes, monitors, collects, and records data to assess accuracy, validity and integrity of data.

<b>Contributing</b>	<b>Journey</b>	<b>Advanced</b>
1. Observes, collects and records a variety of data.	1. Organizes and tabulates data; ensures quality control of data collection.	1. Identifies and reports variations or discrepancies in the data; organizes and prepares data for analyses.
2. N/A	2. N/A	2. Provides preliminary summary of experiments, procedures and tests.
3. N/A	3. N/A	3. Compiles safety data according to standard operating procedures.

**Laboratory/Subject Care**

Provides care for study subject (i.e. patient, animal, crop) within research protocol, including maintaining optimal conditions to prevent disease and contamination; works with study subjects in an ethical manner.

<b>Contributing</b>	<b>Journey</b>	<b>Advanced</b>
1. Provides routine care, maintenance and/or animal husbandry.	1. Administers routine medications and prepares experimental and maintenance diets for research subjects according to established protocols and instructions; observes study subject reactions.	1. Administers specialized medications or chemical treatments according to established protocols; monitors and reports study subject reactions.
2. Prepares study subject for experimental procedures.	2. Same as Contributing	2. Same as Contributing
3. Applies and maintains sanitation and safety procedures.	3. Same as Contributing	3. Ensures compliance with sanitation and safety procedures by others. Maintains and updates safety manuals.
4. N/A	4. Performs minor repairs and operates equipment and instruments in support of research laboratory, field, or clinical programs with limited supervision.	4. Independently performs minor repairs and operates equipment and instruments in support of research laboratory, field, or clinical programs.
5. N/A	5. Maintains inventory of equipment, supplies, and related research materials.	5. Identifies, tracks and reports variations or discrepancies in inventory used in laboratory; may distribute supplies.
6. N/A	6. N/A	6. Coordinates tests, procedures and experiments with ancillary units.

**Training and Experience Guidelines:**

Combination of training and experience required to perform the duties and responsibilities of the position.

**Contributing:** Related knowledge and experience required to perform assigned duties.

**Journey:** High school and one year of directly related experience required to perform the assigned duties.

**Advanced:** High school and two years of directly related experience required to perform the assigned duties.

**Special Note:** This is a generalized representation of positions in this class and is not intended to identify essential work functions per ADA. Examples of competencies are primarily those of the majority of positions in this class, but may not be applicable to all positions.