



STATE OF NEVADA
Department of Administration
Division of Human Resource Management

CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
STAFF RESEARCH ASSOCIATE IV	35	B	10.769
STAFF RESEARCH ASSOCIATE III	33	B	10.770
STAFF RESEARCH ASSOCIATE II	31	B	10.771
STAFF RESEARCH ASSOCIATE I	29	B	10.772

SERIES CONCEPT

Employees in this series perform or supervise the performance of laboratory and/or field experimental procedures in support of academically-supervised research and teaching in the natural, physical, or social sciences. Fields of endeavor include, but are not limited to, anatomy, animal and plant sciences, biochemistry, biotechnology, cell and molecular biology, chemistry, ecology, geology, immunology, microbiology, pathology, pharmacology, physics, veterinary, health sciences and related disciplines.

Plan, design and conduct scientific experiments, testing and analysis. Experiments are conducted in a laboratory or in a field setting.

Interpret project objectives and plan, design, document, execute and troubleshoot experiment protocol. Evaluate protocols for compliance and relevance, provide recommendations. May create original protocols for specific research or for general use in the laboratory or field.

Perform analytical laboratory techniques for chemical and biological analysis by developing or following established procedures and interpreting findings in cell cloning; cytogenetics; recombinant DNA technology; DNA isolation and purification; light, scanning electron or microscopy; gas, gel, thin-layer, or high pressure liquid chromatography; electrophoresis; spectrometry; atomic absorption, UV-visible spectrophotometric and/or spectrofluorometric analysis; membrane analysis; enzyme, protein, virus, and other biochemical or biological assays; and related procedures such as animal surgery, micro-surgery and micro-injection in order to gather technical data related to the phenomena under investigation.

Conduct independent literary research using a variety of resources. Abstract relevant data, review theories and methodologies, and compile or analyze data for research projects.

Record, document, analyze and summarize experiment results. May be responsible for data collection and maintaining repository of scientific information. Prepare report of results and collaborate with principal investigator to evaluate and interpret findings.

Assist with and/or co-author publications for peer-reviewed journals.

Participate in teaching activities by translating the lesson plan and designing relevant experiments; test experiments for proper function and relevance to lesson. Formulate and prepare solutions, compounds, reagents, tissue samples, etc., and set-up apparatus. Explain experiment to students, monitor student experiments and provide feedback, consultation and troubleshooting.

Demonstrate laboratory procedures to students and other laboratory personnel, explaining the fundamentals of experimental methodologies, instruments and procedures. Conduct tours of laboratory facilities and field habitats for clients, visiting scientists, others, explaining the project's purpose, services or research objectives.

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SERIES CONCEPT (cont'd)

Manage daily activities of a laboratory. Monitor operations and activities in the laboratory for safety, compliance and adherence to general protocol. Monitor and manage laboratory environmental conditions such as air quality, sound, and humidity to ensure safe environment for animals and specimens. Train graduate assistants, teaching assistants and undergraduates on equipment operation, scientific procedures and laboratory protocol. Order and maintain inventory of supplies, chemicals, reagents, apparatus, and other. Prepare and maintain stock of solutions, compounds, reagents, tissue cultures, serums, viruses and media. May supervise subordinate staff.

Handle, store, and dispose of radioactive reagents and wastes, controlled substances, and hazardous biologicals and chemicals by following standardized procedures in order to comply with federal and State regulations to maintain laboratory safety. Communicate with internal and external regulatory officials.

Operate and maintain scientific instrumentation by calibrating and monitoring equipment that may include, but is not limited to, amino acid analyzers; analytical balances; autoclaves; centrifuges; chart recorders; computers; cell counters; DNA sequencers or synthesizers; equipment for cell or molecular separations; gas or liquid chromatographs; gas detectors; light and electron microscopes; lyophilizers; luminometers; mechanical pipetting devices; radiation counters and detectors; stereotaxic equipment; pH meters; visible-ultraviolet or atomic absorption spectrophotometers; physiological stimulators; printers; surgical instruments; ultra microtomes; and water purification equipment, in order to perform analytical testing procedures, obtain data for analysis, and comply with quality control procedures.

Perform related duties as assigned.

CLASS CONCEPTS

Staff Research Associate IV: Incumbents in this class work under general supervision of a principal investigator and perform the full range of duties outlined in the series concept in more than one area of specialization, and either perform or oversee the daily operations, instructional obligations, and/or investigations of the workplace. Incumbents engage in difficult and complex research projects in collaboration with academic supervisors, and make important original contributions pertaining to instructional, laboratory and/or field experimental procedures. The selection of methods is frequently left to the incumbent, who typically contributes original ideas of major methodological significance to the execution of

the investigation or assignment by proceeding both to resources with the general body of scientific knowledge and/or by application of trial and error experimentation.

Creatively design approaches in scientific or other methodologies for the field, laboratory or other workplace, and assists with or independently researches, develops, composes and edits protocols, operating procedures, progress reports, manuscripts, grant applications, or other similar documents. Incumbents may be requested to respond to policies and procedures set forth by regulatory agencies, and may supervise undergraduate or graduate students, permanent and temporary employees, volunteers, or visiting scientists.

Consult with academic supervisors on the nature and general plan of approach to basic research problems; read and abstract scientific articles pertaining to exploration of research problems; proceed without obligatory specific direction to organize and resolve experimental protocols; plan, assign, and direct the work of untrained research associates; contribute original ideas of major significance for the execution or interpretation of laboratory and/or field phases of research; take complete charge of the execution of laboratory phases of major research projects over considerable periods of time, for example managing case studies; exercise judgment,

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CLASS CONCEPTS (cont'd)

Staff Research Associate IV (cont'd)

initiative, and resourcefulness in making decisions, consulting as needed with academic supervisors; and prepare complete written reports on all phases of laboratory and/or field work involved in research projects.

Staff Research Associate III: Incumbents work under general supervision and perform the full range of duties outlined in the series concept in more than one area of specialization, are expected to generate independent thinking and self-reliance to perform laboratory and/or field experimental procedures, and make original contributions for achieving the goals of the research project or laboratory. Incumbents design and conduct a diverse range of experiments in support of scientific research, service or instruction. Incumbents interpret findings/output and form conclusions on relevance of data sets and experimental procedures. Incumbents may supervise permanent and/or temporary employees.

Consult with principal investigator or academic supervisors on the nature and general plan of approach to research; read and abstract articles in the examination of research problems; contribute original ideas in the execution of laboratory and/or field phases of research; develop new techniques and train other staff personnel and students; may prepare complete written reports of laboratory and/or field experimentation; may participate in manuscript preparation.

Interpret instructional lesson plans and develop relevant experiments; monitor student-conducted experiments and provide consultation; may develop new instructional methodologies for the teaching environment. May serve as coordinator of research activities under supervisory direction.

Staff Research Associate II: Incumbents work under supervision of a senior laboratory research associate or principal investigator and perform the full range of duties outlined in the series concept. Incumbents are expected to perform instructional, laboratory and/or field experimental procedures in more than one area of specialization, frequently spend a majority of time on scientific experimentation and may be required to supervise permanent and/or temporary employees.

May perform (a) a wide variety of standard repetitive laboratory and/or field experimental procedures at the full operational or journey level of skill in one field or specialty; or (b) a limited variety of non-standard laboratory and/or field experimental procedures requiring ingenuity, resourcefulness, and adaptability to the special and changing needs of research in one specialized field; or (c) a limited variety or repetitive, but highly specialized laboratory and/or field experimental procedures.

May prepare and present reports of experiment results; develop original protocols of a narrow nature, such as for use of specific scientific equipment or for a specific procedure; may function as laboratory safety manager.

Staff Research Associate I: Under close supervision, incumbents may perform the full range of duties outlined in the series concept in one area of specialization, and may provide training for new employees and supervise student employees and/or volunteer laboratory trainees.

Perform instructional, laboratory and/or field experimental procedures, and/or receive training in the more difficult procedures usually requiring a theoretical background in one scientific field; perform procedures of limited variety and/or work under close technical supervision, in their initial assignments. Originality in devising or revising laboratory and/or field experimental procedures is not ordinarily expected nor required at this level.

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MINIMUM QUALIFICATIONS

SPECIAL REQUIREMENTS:

- * Pursuant to NRS 284.4066, some positions in this series have been identified as affecting public safety. Persons offered employment in these positions must submit to pre-employment screening for controlled substances.
- * Positions in animal care facility are considered essential personnel. Incumbents may be required to work weekends, holidays, and report to work during campus closures to provide care.
- * Some positions require a valid driver's license.

INFORMATIONAL NOTES:

- * In order to meet the needs of the recruiting agency, positions may require specialized backgrounds or unique skills which will be identified at the time of recruitment.
- * Some positions may require the incumbent to travel.

STAFF RESEARCH ASSOCIATE IV

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in the required area of specialization and three years of professional research experience either in the field or in a laboratory to include experience coordinating research activities and making original contributions to research design, protocols and processes; **OR** one year of experience as a Staff Research Associate III in Nevada State service; **OR** an equivalent combination of education and experience as described above. (*See Special Requirements and Informational Notes*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Detailed knowledge of: new developments and research innovations in the area of specialization, such as anatomy, animal and plant sciences, biochemistry, cell and molecular biology, chemistry, ecology, geology, microbiology, pharmacology, physics, and related disciplines. **Ability to:** teach and train professional laboratory personnel and students; formulate and develop complex instructions; originate and implement new techniques and procedures; plan and organize techniques involved in conducting original research; *and all knowledge, skills, and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Detailed knowledge of: new contributions to the field of science; implementation of complex protocols to advance science. **Ability to:** manage professional laboratory personnel; implement and guide experimental protocols; contribute to publications in the field of research.

STAFF RESEARCH ASSOCIATE III

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in the required area of specialization and two years of professional research experience either in the field or in a laboratory; **OR** one year of experience as a Staff Research Associate II in Nevada State service; **OR** an equivalent combination of education and experience as described above. (*See Special Requirements and Informational Notes*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Detailed knowledge of: the theories, principles, and practices in the area of specialization; investigative research procedures in a scientific laboratory; and literature and resource materials in the field of specialization pertinent to original research projects. **Working knowledge of:** research techniques and methodology in the required area of specialization, such as anatomy, animal and plant sciences,

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MINIMUM QUALIFICATIONS (cont'd)

STAFF RESEARCH ASSOCIATE III (cont'd)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (cont'd)

biochemistry, cell and molecular biology, chemistry, ecology, geology, microbiology, pharmacology, physics, and related disciplines. **Ability to:** apply research techniques to general project requirements; manage a project and design experimental protocol; present research data and findings to the scientific community; perform complex scientific analysis; modify procedures to achieve project goals; evaluate and modify established research protocols in order to accomplish testing needs; *and all knowledge, skills and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
(*These are identical to the Entry Level Knowledge, Skills and Abilities required for Staff Research Associate IV.*)

STAFF RESEARCH ASSOCIATE II

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in the required area of specialization and one year of professional research experience either in the field or in a laboratory; **OR** one year of experience as a Staff Research Associate I in Nevada State service; **OR** an equivalent combination of education and experience as described above. (*See Special Requirements and Informational Notes*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: the theories, principles, practices, and techniques in the field of specialization; research and investigative procedures in a laboratory setting; research project goals and objectives; agency policies and procedures; and literature and other resources of information in the field of specialization. **Ability to:** participate in original research and analysis for specific projects; apply research techniques to research projects; teach and train professional laboratory personnel and students; understand and follow complex instructions; implement new techniques and procedures; manage the resources of a laboratory, field station, or other work site; operate and maintain sophisticated scientific instruments and equipment; *and all knowledge, skills and abilities required at the lower level.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
(*These are identical to the Entry Level Knowledge, Skills and Abilities required for Staff Research Associate III.*)

STAFF RESEARCH ASSOCIATE I

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in the required area of specialization; **OR** an equivalent combination of education and experience. (*See Special Requirements and Informational Notes*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: the theories and principles in the area of specialization. **Ability to:** understand and follow written and oral instructions; make appropriate analysis based on test data; make general decisions related to the operation of a laboratory; perform library research in scientific disciplines; and compile and record accurate data.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
(*These are identical to the Entry Level Knowledge, Skills and Abilities required for Staff Research Associate II.*)

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This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

ESTABLISHED:	<u>10.769</u> 7/1/99P 12/17/98PC	<u>10.770</u> 10/4/85R 4/11/86PC	<u>10.771</u> 9/27/84	<u>10.772</u> 9/27/84
REVISED:		7/1/87P 7/18/86PC	3/1/85	3/1/85
REVISED:			10/4/85R 4/11/86PC	10/4/85R 4/11/86PC
REVISED:			7/1/87P 7/18/86PC	7/1/87P 7/18/86PC
REVISED:				
REVISED:		7/1/99P 12/17/98PC	7/1/99P 12/17/98PC	7/1/99P 12/17/98PC
REVISED:	3/4/16PC	3/4/16PC	3/4/16PC	3/4/16PC