



## Job Description

**JOB TITLE:** INSTRUCTIONAL ASSISTANT – EARTH SCIENCE

**PAY GRADE:** CL 20

**LAST REVISED:** 01/01/2012

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job. Additional or different duties from the ones set forth below may be required to address changing business needs/practices.*

### **SUMMARY DESCRIPTION**

Under direction of assigned manager, provides a full range of instructional support to the Science Department's faculty, students, and staff requiring in-depth knowledge of subject area; provides tutorial assistance to students in a classroom or laboratory setting; provides assistance to students and staff in the use of technology; maintains equipment in assigned labs; supervises and provides training to student and/or other temporary workers; and performs a variety of other duties as needed to provide technical and teaching assistance to support instructional programs and laboratory activities.

**REPRESENTATIVE DUTIES** - *The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.*

1. Provides instructional support and assists with classroom activities; proctors exams and classroom videos; coordinates with Instructors to set up demonstrations; produces reports; assists with curriculum planning and coordination; assists with layout and production of instructional materials including graphics; researches, learns, and shares information regarding new techniques and methods with other staff.
2. Performs a variety of duties related to equipment maintenance and set-up; inspects, cleans, maintains, and makes minor repairs to equipment, weather station equipment, seismograph, and multimedia equipment; tests, calibrates, and adjusts various precision scientific instruments, audio-visual equipment, and laboratory equipment; services, repairs, and calibrates air tools, lapidary equipment and rock saws; paints, repairs, wires, and installs various items in support of program operations and activities; arranges for servicing and repair as necessary; arranges for servicing, packaging, and shipping of faulty equipment.
3. Prepares, loads, transports, and sets-up equipment for field courses; provides technical support related to equipment operations including assisting students and faculty with equipment problems during field courses; assists students with locating and identifying specimens and confirming their results; breaks-down and stores equipment.
4. Serves as or assists with the role of Curator and Collection Manager for Sierra College's Natural History Museum; performs a variety of duties related to displays and specimen curation: prepares specimens; generates, updates, and backups multiple collection databases; organizes, mounts, maintains and labels specimens and museum displays taking into account earthquake safety; replaces light fixtures and maintains lights in the museum displays.
5. Collects, prepares, identifies, labels, catalogs, displays, and stores rock, mineral, and fossil specimens.
6. Maintains, and labels outdoor specimens including plants, rocks and fossils within the cactus garden and surrounding building. Introduces, removes, and replaces plants within the cactus garden area.

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when necessary.

7. Provides classroom specimen maintenance.
8. Organizes, maintains, files, inventories, and stocks topographic and geology maps.
9. Provides a variety of administrative support; responds to inquiries regarding departmental operations or refer to appropriate staff; coordinates sharing of departmental resources; assists in the maintenance of assigned natural area(s); monitors departmental facilities for appropriate access and security; coordinates use of departmental facilities and collections; prepares or assists with preparation of departmental reports and correspondence; performs other clerical tasks.
10. Participates in the preparation and administration of assigned budgets; provides input regarding budget(s) development; monitors budget expenditures and coordinate purchasing to meet needs within budget(s) parameters; coordinates budget(s) transfers.
11. Provides initial computer technical assistance to faculty, staff and students; installs, removes, maintains, and assists with troubleshooting of departmental personal computer hardware and software; assists with set up of departmental computer systems; answers questions; provides training to students and/or staff members; maintains departmental databases; requests or arranges for assistance, servicing, and/or repair of departmental computer equipment from District information technology staff or other technology resources.
12. Oversees student assistants and other temporary work forces; compiles work specifications and coordinates work requests and needs; recruits, interviews, hires, and provides orientation and training to new student/temporary employees; assigns projects and daily work; evaluates work performed; monitors student/temporary workers hours worked and budgets.
13. May perform basic first aid at field sites.
14. Performs related duties as required, including advocating for the needs of the department.

**QUALIFICATIONS** - *The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

**Knowledge of:**

Wood and metal working practices, processes, and techniques.

Museum curator practices and techniques.

Astronomy, geology, mineralogy, paleontology and associated field work practices sufficient to assist with programs to which assigned.

Geologic field techniques such as mapping, navigating, stratigraphic interpretation, specimen extraction, and data recording.

Federal, State, and Local laws regarding specimen collection.

Fabrication procedures.

Office procedures, methods, and equipment including printers, plotters, and applicable computer hardware and software applications such as word processing, desktop publishing, and database management.

General maintenance and upkeep procedures for audiovisual equipment.

Operational characteristics of laboratory apparatus, equipment, and materials pertaining to assigned laboratory and subject area.

Principles and techniques used in the repair and calibration of scientific instruments.

Supervisory techniques.

Basic budgeting and bookkeeping concepts and techniques.

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Basic inventory and purchasing processes and procedures.  
English usage, spelling, grammar, and punctuation.  
Occupational hazards and standard safety practices including methods and techniques used in handling and disposing of hazardous chemicals.

### **Ability to:**

Perform general technical and operational duties in support of the Astronomy and Geology Departments.  
Organize, file, sort, and document various items and materials.  
Design and fabricate materials using metal and wood.  
Prepare fossil, rock, and mineral samples for laboratory use.  
Repair, calibrate and adjust scientific equipment.  
Correctly identify fossil samples.  
Understand and utilize blueprints, diagrams, schematics, and technical manuals.  
Make arithmetic calculations of average to above average difficulty.  
Listen actively and effectively, identify and solve problems, and facilitate problem solving.  
Operate field equipment including GPS, Brunton compass, and field radios.  
Operate and maintain computer-aided learning equipment and utilize software applications that are dedicated to the subject matter.  
Operate office equipment including computers and utilize software such as word processing, database management, spreadsheets and desktop publishing applications.  
Adapt to changing technologies and learn functionality of new equipment and systems.  
Perform repairs on machines, computers, and equipment.  
Perform general clerical tasks.  
Hire, train, and supervise student and/or other temporary help.  
Work independently and collaboratively.  
Maintain accurate records and multiple databases.  
Plan and organize work to meet changing priorities and deadlines.  
Learn and apply applicable federal, state, and local laws, codes, and regulations as well as administrative and departmental policies and procedures.  
Communicate clearly and concisely, both orally and in writing.  
Establish and maintain effective working relationships with those contacted in the course of work.

**Education and Experience Guidelines** - *Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

### **Education/Training:**

At least two years of college with major course work in Geology, Paleontology, or another closely-related scientific field. A Bachelor's degree from an accredited college or university is highly desirable.

### **Experience:**

At least two years of increasingly responsible experience in Earth Sciences, Geology, Paleontology, or closely-related scientific department.

**PHYSICAL DEMANDS AND WORKING ENVIRONMENT** - *The conditions herein are representative of*

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*those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.*

**Environment:** Work is performed indoors in a classroom/laboratory setting and outdoors in the field; exposure to dusts, mists, fumes, wet/damp surfaces, extremes of heat or cold, moderately high levels of noise, chemicals and caustics, allergenic plants and materials; risk of insect and animal stings and bites; risk of exposure to blood borne and/or other pathogens; work with laboratory equipment and apparatus. Moderate exposure to risks controlled by safety precautions.

**Physical:** Primary functions require sufficient physical ability and mobility to work in an office and/or indoor/outdoor education center/classroom/laboratory setting; to stand or sit for prolonged periods of time; to occasionally walk, stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate laboratory and office equipment requiring repetitive hand movement and fine coordination including use of a computer keyboard; to verbally communicate to exchange information; and requires the wearing of personal protective equipment including safety glasses or goggles, lab coats, rubber or plastic gloves, respirators, or face shields.

**Vision:** See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment.

**Hearing:** Hear in the normal audio range with or without correction.

*Developed In Consultation With*

