



Career Service Authority

Engineering Aide

Page 1 of 4

GENERAL STATEMENT OF CLASS DUTIES

Position performs entry level sub-professional work assisting with a variety of engineering work.

DISTINGUISHING CHARACTERISTICS

Position performs entry level sub-professional work with no supervisory responsibilities. The Senior Engineering Aide performs standard level sub-professional work and may perform lead work over other employees.

Guidelines, Difficulty and Decision Making Level:

Procedures, methods and techniques to be used are well established with options to be considered well defined. Tools, work aids and materials to be used are specified. Work steps are demonstrated or made clear by straightforward oral instructions.

Detailed oral and/or written instructions are normally given during the training period. Work steps involve a pattern of sequential motions such as push, pull, lift, carry or place which may include making gross discriminations as to size, color or readily observable conditions.

Duties assigned are primarily routine, repetitive and restricted in intricacy with little or no discretion in how they are carried out.

Level of Supervision Received and Quality Review:

Under close supervision, the employee receives training to develop skills and abilities in a specific line of work or general occupational area. Work product is subject to close, continuous inspection.

Interpersonal Communications and Purpose:

Contacts with the public or employees where factual information relative to the organization or its functions is received and relayed, or a service rendered, according to established procedures or instructions.

Level of Supervision Exercised:

No supervisory responsibilities.

ESSENTIAL DUTIES

Position performs entry level sub-professional work for the purpose of supplying data to responsible parties to ensure compliance with governmental and environmental regulations, engineering and/or construction specifications.

Trains in and assists with surveys, inspections and procedures used sufficient to be able to perform the duties of the work assignment.

Trains in and assists with the operation and programming of a variety of measuring devices.

Position performs mathematical calculations that are necessary to carry out the duties of the assigned work.

Cleans and cares for basic tools and equipment.

Observes all common safety practices associated with the work assignment.

Performs other related duties as assigned or requested.

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Any one position may not include all of the duties listed.
However, the allocation of positions will be determined by
the amount of time spent in performing the essential duties
listed above.
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MINIMUM QUALIFICATIONS

Competencies, Knowledges & Skills:

Reading - Learns from written material by determining the main idea or essential message; ability to recognize correct English grammar, punctuation and spelling.

Writing - Uses correct English grammar, punctuation and spelling to communicate thoughts, ideas, information and message in writing.

Listening - Receives, attends to, interprets, and responds to verbal messages and other cues such as body language in ways that are appropriate to listeners and situations.

Speaking - Uses correct English grammar to organize and communicate ideas in words that are appropriate to listeners and situations; uses body language appropriately.

Arithmetic/Mathematical Reasoning - Performs computations such as addition, subtraction, multiplication, and division correctly; solves practical problems by choosing appropriately from a variety of mathematical techniques such as formulas and percentages.

Reasoning - Discovers or selects rules, principles, or relationships between facts and other information.

Mental Visualization - Sees things in the mind by mentally organizing and processing symbols, pictures, graphs, objects, or other information. For example, sees a building from a blueprint, or sees the flow of work activities from reading a work plan.

Memory - Recalls information that has been presented previously.

Applies Technology to Tasks - Selects and understands procedures, machines, or tools that will produce the desired results; identifies or solves problems in machines, computers, or other technologies as they are related to performing tasks.

Organizational Awareness - Knows how social, political, organizational, and technological systems work and operates effectively with them. This includes the policies, procedures, rules and regulations of the work unit or organization.

Interpersonal Skills - Shows understanding, friendliness, courtesy, tact, empathy, cooperation, concern, and politeness to others; relates well to different people from varied backgrounds and different situations.

Self-Esteem - Believes in own self-worth, maintains a positive view of self, and displays a professional image.

Teamwork - Encourages and facilitates cooperation, pride, trust, and group identity; fosters commitment and team spirit; works with others to achieve goals.

Knowledge of standard practices, policies and procedures used sufficient to be able to perform the duties of the work assignment.

Knowledge of common safety hazards and pre-cautions in order to safeguard self and others in creating and maintaining a safe work environment.

Skill in understanding and following oral, illustrated, written, or demonstrated instructions.

Skill in communicating and presenting factual information related to the work assignment.

Skill in performing a variety of mathematical calculations.

Skill in cleaning, packing and storing tools and equipment.

Physical Demands:

Standing: remaining on one's feet in an upright position.

Walking: moving about on foot.

Lifting: raising or lowering an object from one level to another.

Lifting: Raising or lowering an object 25-50 pounds.

Carrying: transporting an object, usually by hand, arm, or shoulder.

Pushing: exerting force on an object so that the object is away.

Pulling: exerting force on an object so that it is moving to the person.

Climbing: ascending or descending objects usually with hands/feet.

Balancing: maintaining body equilibrium to prevent falling over.

Stooping: bending the body by bending spine at the waist.

Kneeling: bending legs to come to rest on one or both knees.

Crouching: bending body downward and forward by bending legs.

Reaching: extending the hand(s) and arm(s) in any direction.

Handling: seizing, holding, grasping, or otherwise working with hand(s).

Fingering: picking, pinching, or otherwise working with fingers.

Talking: expressing or exchanging ideas by means of spoken words.

Hearing: perceiving the nature of sounds by the ear.

Repetitive Motions: making frequent movements with a part of the body.

Eye/Hand/Foot Coordination: performing work through using two or more.

Far Acuity: ability to see clearly at 20 feet or more.

Near Acuity: ability to see clearly at 20 inches or less.

Depth Perception: ability to judge distance and space relationships.

Field of Vision: ability to see peripherally.

Accommodation: ability to adjust vision to bring objects into focus.

Color Vision: ability to distinguish and identify different colors.
Mathematical Reasoning
Memorization
Oral Comprehension
Spatial Orientation
Written Comprehension

Working Environment:

Noise: sufficient noise to cause distraction or possible hearing loss.
Hazards: conditions where there is danger to life, body and/or health.
Atmospheric Conditions: conditions that affect the skin or respiratory system.
Exposure: maybe exposed to extreme heat/cold in all weather conditions.
Contamination: may come in contact hazardous materials/waste i.e. radiation.
Injury: maybe subject to injury from moving parts on equipment.

Education Requirement:

This position requires graduation from high school or a GED Certificate including completion of course work in Algebra, Geometry, Drafting and/or Surveying.

Experience Requirement:

None

Education/Experience Equivalency:

Additional appropriate experience may be substituted for the minimum education requirement.

Licensure and/or Certification:

By position, requires a valid Colorado Class "R" Driver's License. Licensure in another state will be accepted in lieu of this requirement, provided the applicant is licensed by the State of Colorado by the end of the probationary period.

CLASS DETAIL

FLSA CODE: 3 Technician

ESTABLISHED DATE: 09/16/95

REVISED DATE: 11/01/02

REVISED BY: John F. Hoffman

CLASS HISTORY: The licensure and certification requirement was changed because not all positions require possession of a driver's license.