

**GENERAL DESCRIPTION OF CLASS**

Under the technical guidance of a higher level engineering technician or engineer, the ENGINEERING SPECIALIST (ENTRY) work as a member of a crew and performs a variety of basic surveying, simple drafting work on preliminary plans prepared in a field office, construction inspection, and other tasks directly related to engineering technology.

**DISTINGUISHING FEATURES**

The Engineering Specialist (Entry) will be used as an underfill class for the Engineering Specialist 1 position. This is the first level of a four-level series. This class is distinguished from the higher class by the on-the-job training received and the responsibility for learning the skills required. The training period is determined by the agency based on the employee's background and level of proficiency as assignments increase in difficulty and variety.

**DUTIES AND RESPONSIBILITIES**

- 1.**Field Surveying.** Typical tasks: acts as flag person; sets survey markers; clears brush from work area; assists in searches for survey points; acts as chain and rodperson on survey crews; performs basic mathematical calculations.
- 2.**Construction Inspection.** Typical tasks: under the guidance of a higher level inspector, operates scales used to weigh trucks hauling construction materials and issues receipts to contractors; records truck weights in daily activity reports; assists a higher level technician in sampling and testing of construction materials by obtaining samples such as rock, cement, asphalt, or concrete.
- 3.**Office Drafting.** Typical tasks: performs simple basic drafting for preliminary and final plans with close guidance from other drafters, engineers, leadworkers or supervisors; prepares base sheets by tracing on alignment, right-of-way lines and other engineering features from location maps using pencil, ink pens or computer-aided drafting equipment; plots cross sections, plots profiles, and maintains drafting equipment.
- 4.**Miscellaneous.** Typical tasks: receives field survey or construction inspection information, and records information into project records; verifies the accuracy of numbers in records by comparing with source documents and corrects errors; operates computer keyboard to enter data and perform routine engineering calculations; learns the operation of a computer system; may drive a vehicle to and from work sites.

**RELATIONSHIPS WITH OTHERS**

Employees in this class have regular contact in-person with contractors' employees to issue weight receipts and obtain samples, and with the public when flagging traffic or serving as a member of a survey crew. Office employees have occasional contact with other departmental employees in order to obtain information to draft accurate and complete plans.

**SUPERVISION RECEIVED**

Employees in this classification work under the close supervision of an engineering supervisor who is responsible for assigning work in person or through leadworkers, and for reviewing work performance. Detailed instructions on work methods are provided by a higher level technician or a supervisor, usually in the form of verbal instructions or manuals containing specific steps to be followed. As experience is gained with repetitive tasks, the degree of instruction lessens. However, the results of work performed are reviewed by a supervisor who is responsible and accountable for the quality of work in conformance with established guidelines.

**GENERAL INFORMATION**

Positions in this classification are located throughout the State and must have the willingness to work in the environment associated with the job. This includes the willingness to perform physical work outdoors in a variety of weather conditions and the willingness to work extended or irregular hours.

**KNOWLEDGE, SKILLS, AND ABILITIES (KSA)**

General knowledge of mathematics including addition, subtraction, multiplication, division, algebra, and plane geometry.

Ability to trace and letter engineering drawings neatly and accurately.

Ability to work as a member of a crew or team.

Ability to learn safety procedures regarding highway traffic and construction equipment.

Ability to write legibly and record data accurately.

Ability to understand and follow oral and written instructions.

Ability to develop proficiency in assigned tasks.

**SPECIAL QUALIFICATIONS**

Ability to obtain an Oregon driver's license.

**NOTE:** The KNOWLEDGE and SKILLS are required for initial consideration. ABILITIES may be required for initial consideration, at any time during the selection process, or during a trial service period as a final stage of the selection process. Some duties performed by positions in this class may require different KSA's. No attempt is made to describe every KSA required for **all** positions in this class. Additional KSA requirements will be explained on the recruiting announcement.

Adopted 1/90

Revised

Examples of work are typical of duties assigned to this class. No attempt is made to describe every duty performed by all positions in this class.