

ILLINOIS DEPARTMENT OF CENTRAL MANAGEMENT SERVICES  
CLASS SPECIFICATION

MECHANICAL ENGINEER SERIES

<u>CLASS LEVEL</u>	<u>POSITION CODE</u>
MECHANICAL ENGINEER I	26201
MECHANICAL ENGINEER II	26202
MECHANICAL ENGINEER III	26203

Effective: 2-22-94

SERIES DISCUSSION:

Positions which are classified into this series perform professional engineering functions in the planning and designing of various mechanical systems which exists in state-owned facilities and institutions.

The Mechanical Engineer positions are determined and defined by the nature of assignments, level of responsibility allocated to each level, and scope of supervisory control. The first three levels of Mechanical Engineer are determined and defined by the nature of assignments and the level of responsibility allocated to each level. The assignments made at each level will be determined by the previous expertise and experience learned. The assignments require the application of engineering principles, theories and techniques previously learned and utilized in previous assignments. The Mechanical Engineer IV is determined and defined by the scope of supervisory control and program complexity as well as nature of assignments and the level of responsibility allocated.

MECHANICAL ENGINEER I

POSITION CODE: 26201

**DISTINGUISHING FEATURES OF WORK:**

Positions allocated to this level perform assignments that require technical application of mechanics, thermodynamics, and other engineering sciences with preparation of plans for heating, ventilation, refrigeration, automotive and other mechanical systems in state facilities. The assignments given are performed under direct supervision as to work details, quality of work and performance rate. The assignments are given to require basic usage of engineering formulas to routine mathematical equations; plots data; performs drafting and minor detail designs; compiles data file of design calculations and assists higher level engineers in their functions.

**DESIRABLE REQUIREMENTS:**

Education and Experience

The education, knowledges, and abilities required at this level are equivalent to the completion of four years of college, with a degree in mechanical engineering.

No previous work experience.

Knowledges, Skills and Abilities

Requires the elementary knowledge of the modern methods, principles, and techniques of mechanical engineering.

Requires the ability to carry out the assigned work.

MECHANICAL ENGINEER II

POSITION CODE: 26202

**DISTINGUISHING FEATURES OF WORK:**

Positions allocated to this level perform assignments under general supervision which require application of a variety of methods and techniques which require independent judgment in connection with the investigation, design and installation of the heating, ventilation, refrigeration, automotive and other mechanical systems in state-owned facilities. The assignments are given with general instructions as to what needs to be done and are reviewed during the course of completion for accuracy and adequacy. The positions are responsible for making calculations and simple, design of heating, plumbing, ventilation and air conditioning systems, responsible for compiling data necessary for designing, preparation of working drawings, specifications, and estimates of mechanical equipment for facilities and assist higher level mechanical engineers with their functions.

**DESIRABLE REQUIREMENTS:**

Education and Experience

The education, knowledges, and abilities required for this level is equivalent to the completion of four years of college, with a degree in mechanical engineering; with one year of professional engineering experience.

Knowledges, Skills and Abilities

Requires working knowledge of the modern methods, principles, techniques and theories of mechanical engineering

Requires the ability to assist in design drawings.

Requires the ability to compile data and make rough drawings.

Requires the ability to carry out the assigned work.

MECHANICAL ENGINEER III

POSITION CODE: 26203

**DISTINGUISHING FEATURES OF WORK:**

Positions allocated to this level perform assignments under direction which require application of a variety of methods and techniques which require solving novel and complex situations exercising a wide latitude of independent judgment in the investigation, design and installation of the heating, plumbing, ventilations, refrigeration, automotive and other mechanical systems in state-owned facilities.

Positions allocated at this level perform complex technical work in the design of mechanical systems, collates data for determination of designs, and specifications of mechanical equipment to be utilized; inspects installation and operation of mechanical equipment and systems; and assists in the inspection and testing of mechanical equipment.

**DESIRABLE REQUIREMENTS:**

Education and Experience

The education, knowledges, and abilities required at this level are equivalent to the completion of four years of college, with a degree in mechanical engineering and with two years of professional experience in mechanical engineering.

Knowledges, Skills and Abilities

Requires extensive knowledge of modern methods and techniques as applied to the design, installation, operation, and maintenance of mechanical systems and equipment.

Requires extensive knowledge of the skills and techniques involved in the various trades.

Requires ability to plan and carry out assignments.

Requires ability to prepare technical reports.

Requires ability to maintain cooperation with agency officials.

Requires ability to analyze and evaluate technical aspects of physical plan operations.