

## CHEMIST I

### Kind of Work

Professional laboratory work in the chemical analysis and examination of various substances and materials.

### Distinguishing Features of Work

An employee in this class is responsible for chemical analysis of foods, drugs, industrial products also, and the several organic and inorganic substances in connection with forensics problems. Work involves the making of qualitative analyses, also organic and inorganic syntheses and the supervision and training of Scientific Assistants. Some instructions are received verbally or in writing from a professional superior but for the most part instructions are in the form of advice letters stating the tests required on the substances submitted. Employee develops his own methods but on the more difficult tests receives advice from a superior. Work is reviewed for results attained through written reports and discussions with superiors.

### Examples of Work

Analyse or assists in the analysis of a wide range of substances and materials subject to duty.

Analyses or assists in the analysis of a variety of foods and drugs in connection with applicable laws and regulations.

Analyses or assists in the analysis of manufactured or industrial substances and materials being imported or exported, such as soaps, detergents, plastics, natural and synthetic rubbers, insecticide, paints and inks.

Makes or assists in making analyses of blood stains and specimens, quantity of alcohol in urine and blood, corrosive or inflammable liquids, and related tests in connection with police requests.

Uses chemical balances, colorimeter, spectrograph, spectrophotometer, centrifuge, microscope, retractometer, and other related instruments in the conduct of various examinations and tests.

Assists in the supervision and training of Scientific Assistants.

Performs chemical and physical tests on materials purchased by the agencies of government for conformance to specifications.

Appears in Court as necessary to give evidence on reports signed by him.

Devises new methods of analysis and investigates new methods of research as they appear in current journals.

Performs related work as required.

### **Required Knowledge, Skills and Abilities**

Knowledge of the principles and practices of analytical, physical, organic and inorganic chemistry.

Knowledge of modern laboratory methods, techniques, equipment and materials.

Knowledge of the sources of information and of current information in the field of analytical chemistry.

Some knowledge of the applicable laws and regulations.

Skill in the use and care of chemical laboratory instruments, equipment and materials.

Ability to perform standard and non-routine chemical analyses of a variety of substances and to investigate methods of analyses.

Ability to make qualitative and quantitative analyses and organic and inorganic tests.

Ability to write clear and concise reports of the results of the tests performed.

Ability to assist in the training and supervision of Scientific Assistants and to review, correct as necessary, and consolidate reports made by them.

Ability to establish and maintain effective working relationships with other employees and the public.

### **Minimum Experience and Training**

Training as evidenced by the Bachelor of Science Degree from a recognised University with major courses in Chemistry and one of the Biological Sciences; or its equivalent.