

PART II	DEPARTMENT OF HUMAN RESOURCES DEVELOPMENT	5.555
	STATE OF HAWAII	5.557
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	Minimum Qualification Specifications for the classes:	5.561

CHEMIST II, III, IV, V & VI

**Basic Education/Experience Requirements**

Graduation from an accredited college or university with a bachelor's degree in chemistry or a closely related science which included at least 30 semester credit hours in chemistry courses, including organic, inorganic, analytical and/or physical chemistry.

Excess work experience as described under the Specialized Experience, below, or any other responsible administrative, professional or analytical work experience that provided knowledge, skills and abilities comparable to those acquired in four (4) years of successful study while completing a college or university curriculum leading to a baccalaureate degree in chemistry or a closely related science, as described above, may be substituted on a year-for-year basis. To be acceptable, the experience must have been of such scope, level and quality as to assure the possession of comparable knowledge, skills and abilities.

The education or experience background must also demonstrate the ability to write clear and comprehensive reports and other documents; read and interpret complex written material; and solve complex problems logically and systematically.

**Experience Requirements**

Applicants must have had progressively responsible work experience of the kind and quality described below, and in the amounts indicated in the following table, or any equivalent combination of training and experience:

Class Title	Specialized Experience (Years)	Supervisory Experience (Years)	Administrative Aptitude (Years)	Total Experience (Years)
Chemist II	0	0	0	0
Chemist III	1	0	0	1
Chemist IV	2*	0	0	2
Chemist V	3*	**	0	3
Chemist VI	3*	1	***	4

**Specialized Experience:** Professional work experience which demonstrated the ability to apply the scientific laws and principles of chemistry to predict results; or to interpret and evaluate the results of professional research or analyses by other chemists; or to assess the need for and validity of proposed changes and improvements in laboratory procedures and methods.

\*For the Chemist IV, V and VI levels, at least one (1) year of the required Specialized Experience must have been comparable to the fully competent worker, or the Chemist III level in the State government.

Examples of Qualifying Experience:

1. Chemical laboratory work experience in testing or analyses which included such factors as evaluating the adequacy of samples and the methods and procedures for their preparation and analysis; adapting methods to samples that deviate from the normal; analyzing the cause and significance of unexpected reactions; or evaluating the validity of results on the basis of theoretical considerations. These factors must have required the use of principles of theoretical or applied chemistry and the ability to reason from them in the solution of scientific problems.
2. College-level teaching experience in chemistry courses which was accompanied by research, direction of research, or investigative work in the field of chemistry.
3. Research or investigative chemistry experience which required the use of existing knowledge of chemistry to determine the course of action to solve chemistry problems.

Examples of Non-Qualifying Experience: Examples of non-qualifying experience in chemistry are work characteristic of chemistry technicians that may have required a high degree of manipulative skill, care and precision; or which required recognition of unanticipated or unusual reactions but which did not require the application of chemical theory to determine the cause or possible significance of the results or reactions.

Supervisory Experience: Work experience in the supervision of chemists performing work as described in Specialized Experience above, which included: 1) planning, organizing and directing the work of others; 2) assigning and reviewing their work; 3) advising them on difficult work problems; 4) training and developing subordinates; and 5) evaluating their work performance.

\*\*For the class Chemist V, applicants must demonstrate possession of supervisory aptitude. Supervisory Aptitude is the demonstration of aptitude or potential for the performance of supervisory duties through successful completion of regular or special assignments which involve some supervisory responsibilities or aspects of supervision, e.g., by serving as a group or team leader; or in similar work in which opportunities for demonstrating supervisory capabilities exist; by completion of training courses in supervision accompanied by application of supervisory skills in work assignments; and/or by favorable appraisals by a supervisor indicating the possession of supervisory potential.

\*\*\*Administrative Aptitude: For the class Chemist VI, administrative aptitude is required. Administrative aptitude will be considered to have been met when there is strong affirmative evidence of the necessary administrative aptitudes and abilities. Such evidence may be in the form of success in regular or special assignments or projects which involved administrative problems (e.g., in planning, organizing, promoting, and directing a program, including policy and budgetary considerations; and/or providing staff advice and assistance in such matters); interest in administration demonstrated by the performance of work assignments in a manner which clearly indicates awareness of administrative problems and the ability to solve them; completion of educational or training courses in the area of administration accompanied by the application of the principles, which were learned, to work assignments; management's observation and evaluation of the applicant's leadership and administrative capabilities; success in trial assignments to managerial and/or administrative tasks.

### **Quality of Experience**

Possession of the required number of years of experience will not in itself be accepted as proof of qualification for a position. The applicant's overall experience must have been of such scope and level of responsibility as to conclusively demonstrate that he/she has the ability to perform the duties of the position for which he/she is being considered.

### **Substitutions Allowed**

1. A master's degree in chemistry from an accredited college or university may be substituted for one (1) year of the required Specialized Experience.
2. A Ph.D. in chemistry from an accredited college or university may be substituted for two (2) years of Specialized Experience.

### **Selective Certification**

Specialized knowledge, skills and abilities may be required to perform the duties of some positions. For such positions, Selective Certification Requirements may be established and certification may be restricted to eligibles who possess the pertinent experience and/or training required to perform the duties of the position.

Agencies requesting selective certification must show the connection between the kind of training and/or experience on which they wish to base selective certification and the duties of the position to be filled.

### **Tests**

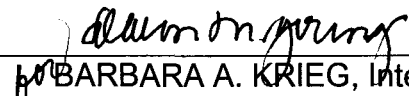
Applicants may be required to qualify on an appropriate examination.

**Physical and Medical Requirements**

Applicants must be able to perform the essential duties and responsibilities of the position effectively and safely, with or without reasonable accommodation.

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This is an amendment to the minimum qualification specifications for the Chemist Series, which were approved on June 22, 1979.

DATE APPROVED: 2/14/2012

  
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