

**COMPETENCY MODEL FOR
SENIOR CHEMIST
CLASS CODE 7830**

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of **SENIOR CHEMIST**. (Numbers refers to the order of competencies in the Competency Bank.)

- 3. Judgment and Decision Making
- 4. Analytical Ability
- 13. Stress Tolerance
- 20. Job Knowledge
- 28. Supervision
- 34. Customer Service
- 45. Oral Communication
- 47. Written Communication

On the following pages are descriptions of each competency, including a definition, the level of the competency required for the class (*italicized and underlined*), examples of behavioral indicators, and satisfactory and superior performance levels.

3. JUDGMENT AND DECISION MAKING – Accurately assesses situations, seeks new information if necessary, and applies all available information to reach sound conclusions/formulate effective response.

Level of Competency Required by Job:

Level 1: Training and guidelines needed to respond to immediate situations within very specific function are provided (or supervisor available to assist).

Level 2: General information and guidance to assist in responding to a variety of situations across a range of circumstances are provided.

Level 3: Little guidance available for responding to a wide range of complex situations with far-reaching and/or enduring consequences.

Examples of Behavioral Indicators:

- Effectively responds to atypical situations.
- Asks questions or otherwise obtains additional relevant information to make a decision.
- Formulates a decision and necessary actions based on available facts.
- Correctly infers appropriate response based on information provided and existing policies, personal experience, and/or consultation with others.
- Discusses conclusions/possible responses with others before taking action as necessary.
- Considers impact of decisions on all affected parties.

Performance Levels:

Satisfactory

Correctly assesses routine and unusual situations and reaches appropriate conclusions for actions needed. Obtains additional information and/or consults with others as necessary.

Superior

Evaluates new situations accurately to establish an appropriate response or plan of action. Recognizes the impact on all affected parties, as well as the possible ramifications and/or repercussions of setting a precedent.

4. ANALYTICAL ABILITY – Identifies, obtains, and evaluates relevant information to establish relationships or patterns, cite causes, and reach logical conclusions.

Level of Competency Required by Job:

Level 1: Recognize similarities/differences in current situation to those previously encountered and is guided accordingly. Apply existing policies correctly. Ask pertinent questions or otherwise seek additional information to formulate appropriate response.

Level 2: Consider multiple, varied factors when evaluating a situation or issue. Seek additional information to provide further insight. Reach conclusions that logically follow from the information obtained.

Level 3: Consider a multitude of diverse factors, their interrelationships, the perspectives of others, alternative courses of action and their likely ramifications when evaluating information to reach a conclusion.

Examples of Behavioral Indicators:

- Obtains the necessary amount of relevant information.
- Recognizes the impact of each type of information on conclusions.
- Evaluates the quality/source of information when considering it.
- States the shortcomings of the information and, therefore, the analysis.

Performance Levels:

Satisfactory

Recognizes available relevant information, seeks additional information to consider, and reaches a conclusion. Provides sound, convincing justification for conclusions, citing relevant data and facts.

Superior

Uses a great deal of existing and obtained information and data to develop and evaluate alternatives and arrive at a final conclusion. Provides compelling arguments in support of conclusions.

13. STRESS TOLERANCE – Maintains effective performance when under pressure, confronted with opposition or criticism, and/or when the situation is dangerous.

Level of Competency Required by Job:

Level 1: Assignment may include varied or heavy workload; new tasks may need to be learned; members of the public and, at times, co-workers may be rude.

Level 2: *Insufficient staff or resources may be available to accomplish work. Priorities/objectives may be unclear and/or direction uncertain. Role ambiguity regarding responsibilities may exist. May encounter disagreement or criticism when performing job activities.*

Level 3: Presentation and defense of position in a public forum, which at times entails facing opposition, may be required. Work environment may be fast-paced and one in which urgent decisions must be made. Making life-or-death decisions may be necessary.

Examples of Behavioral Indicators:

- Remains composed and focused on the task at hand in the presence of obvious stressors.
- Understands that rudeness or opposition is not typically personal attacks.
- Continues to make good decisions under urgent circumstances or when in danger.
- Soothes others who are more adversely affected by stress.

Performance Levels:

Satisfactory

Continues to perform effectively under stressful circumstances.

Superior

Acknowledges stress, but appears to be unaffected by it. Concentrates extra effort on accomplishing the task at hand. Assists others with effective coping.

20. JOB KNOWLEDGE – Knows information required to perform a specific job. Includes both widely available courses of study (for example, chemistry, human resources management, graphic arts) and City-specific information (parking regulation and ticketing practices; purchasing procedures; provisions of the City Charter).

Level of Competency Required by Job:

Level 1: Knowledge is concrete, factual, and/or procedural and may be defined by the organization. Situations in which it is applied are quite consistent.

Level 2: Knowledge is substantive and may be defined by an external trade, field, or profession. Situations in which it is applied vary and, as such, require breadth and depth of understanding.

Level 3: Knowledge is abstract, conceptual, and/or complex and may be supported by a well-defined academic discipline or authoritative sources (e.g., laws, ordinances, government guidelines/regulations/ codes). Situations in which it is applied may vary greatly or be novel.

Examples of Behavioral Indicators:

- Performs work correctly/avoids technical (job content related) errors.
- Answers technical questions about work accurately.
- Asks few technical questions about the performance of routine work activities.
- Offers advice (“coaching”) to new employees regarding their work.
- Develops training programs for other employees.
- Sought out as a source of information by others.

Performance Levels:

Satisfactory

Sufficient job knowledge to perform work correctly independently. Answers technical questions about work correctly.

Superior

Expertise in technical job information sufficient to serve as a resource to others. May develop training manuals/programs and/or give internal and/or external presentations related to work.

Job Knowledge Areas

1. Knowledge of special studies and the testing of environmental samples, including those related to priority pollutants sufficient to find more efficient processes or procedures to solve treatment problems and to produce accurate and precise data for clients.
2. Knowledge of the matrix of a sample and how it affects tests due to interference of other chemicals in solutions sufficient to ensure quality results are obtained and interpreted accurately.
3. Knowledge of the instrumentation needs of a laboratory in terms of what the equipment can provide and the training required to use such instruments sufficient to ensure proper testing of samples in compliance with the demands of regulatory agencies.
4. Knowledge of proper sample collection procedures, including the types of container, proper preservatives, holding times, sampling points and frequency, and proper handling procedures sufficient to protect the integrity of the sample.
5. Knowledge of stoichiometry as it relates to the preparation of reagents and the understanding of chemical reactions sufficient to ensure proper testing.
6. Knowledge of the properties of chemicals such as flammability, corrosiveness, oxidizability, solubility, volatility and toxicity, in terms of their compatibility, order of mixing, and the location of mixing sufficient to ensure a safe working environment.
7. Knowledge of the proper use and handling of basic laboratory equipment and instruments such as volumetric glassware, analytical balance, stirring motors, heating devices, conductivity and other meters sufficient to ensure compliance with safety rules and regulations and to complete or conduct testing.
8. Knowledge of fundamental laboratory procedures, such as distillation, digestion, extraction, evaporation, concentration, isolation, filtration and titration sufficient to complete or conduct proper testing.
9. Knowledge of the basic physical principles of commonly used analytical instruments such as Gas Chromatography (GC), Gas Chromatography/Mass Spectroscopy (GC/MS), Inductively Coupled Plasma (ICP), Inductively Coupled Plasma/Mass Spectroscopy (ICPMS), High Performance Liquid Chromatography (HPLC), Ion Chromatography (IC), and UV/VIS Spectrophotometer sufficient to analyze environmental samples.
10. Knowledge of analytical chemistry including qualitative and quantitative analysis sufficient to identify and measure the concentration of compounds and establish standard curves.
11. Knowledge of quality assurance regulations, documentation requirements, and the guidelines of other regulatory agencies such as the United States Environmental Protection Agency (USEPA), the State Department of Health Services, Occupational Safety and Health Administration (OSHA), and Water Quality Control Board, which govern the concentrations of constituents in the sample being analyzed, sufficient to ensure compliance with applicable regulations, procedures and requirements.

28. SUPERVISION – Ability to assume direct responsibility for all aspects of the performance of a work group, which requires knowledge and/or ability in the areas of:

- Planning and goal setting
- Creating a safe and positive work environment
- Establishing standards and training employees
- Motivating employees and teambuilding
- Performance Management (assigning, monitoring, facilitating, reviewing and evaluating work, and providing feedback)
- Supporting and developing employees through delegation and participation
- Taking disciplinary action including progressive discipline
- Provisions of employees' MOU's and handling grievances
- Legal requirements including EEO, ADA, FLSA, FMLA, and Workers' Compensation provisions
- Civil Service Commission Rules and Policies related to the management of employees
- Administrative Code provisions related to the management of employees
- Budget processes sufficient to request and justify expenditures in a correct and timely manner

Level of Competency Required by Job:

Level 1: Supervises small workgroup of employees performing the same or highly related work.

Level 2: Supervises a larger workgroup of employees performing various types of work.

Level 3: Supervises employees including provision of coaching and advice to subordinate supervisors.

Examples of Behavioral Indicators:

- Plans, assigns, and monitors work progress.
- Trains employees to do work.
- Evaluates work and gives positive and negative feedback.
- Displays knowledge of legal requirements including applicable Federal and State laws, Administrative Code provisions, Civil Service Commission Rules and Policies, and MOU provisions.

Performance Levels:

Satisfactory

Proficiency in supervision sufficient to supervise a workgroup in terms of task orientation, interpersonal concerns, and personnel administration.

Superior

Proficiency in supervision sufficient to serve as a resource to others and/or represent department position in a public forum.

34. CUSTOMER SERVICE – Interacts with recipients of services (internal or external customers) in a way that provides accurate, timely, and effective information and service.

Level of Competency Required by Job:

Level 1: Interact with customers in person, over the telephone, or through e-mail (and/or other electronic media) in order to provide information or assistance. Listen to customer concerns; explain/reconcile information and provide alternatives if possible; facilitate resolution by making referral and/or following-up as necessary.

Level 2: Promotes positive customer service. Serves as a model of providing exemplary customer service.

Level 3: Develop customer-oriented procedures; identifies changes in procedures to enhance customer service and ensures they are implemented.

Examples of Behavioral Indicators:

- Carefully listens to (or reads) customer statement of the issue.
- Provides direct, informative, accurate responses to customer.
- Suggests options if available.
- Maintains a positive attitude in the face of customer complaint or frustration.
- Remains focused on the issue presented by the customer and directs the customer back to the issue if necessary.
- Asks the customer if their concerns have been fully addressed.
- Ensures organizational policies and practices are customer-focused.
- Ensures all employees recognize their responsibility for customer service and are properly trained for it.

Performance Levels:

Satisfactory

Displays knowledge as well as courtesy and patience when interacting with customers. Ensures customers' issue is correctly identified and remains focused on it until it is resolved.

Superior

Seeks further information or advice to resolve difficult issues. Solicits feedback on the effectiveness of service. Makes suggestions for improving service and facilitates changes needed to implement.

45. ORAL COMMUNICATION – Communicates orally in a clear, concise, and effective manner.

Level of Competency Required by Job:

Level 1: Exchange specific, job-related information orally with others in the immediate work environment or via telephone and/or radio.

Level 2: Obtain/provide/present general and/or job-specific information orally to a variety of others in various situations.

Level 3: Obtain/provide/present a diverse array of information orally at varying levels of complexity to a wide range of others across many different situations and circumstances.

Examples of Behavioral Indicators:

- Audience clearly understands the intended message.
- Rarely must repeat information in response to questions.
- Refrains from use of unnecessary words, phrases, or jargon.
- Provides a level of detail appropriate to the situation (avoids too much or too little detail).
- Speaks at a level appropriate to the audience in terms of terminology, sentence structure, and simplicity/complexity of ideas expressed.
- Uses words with precision (vocabulary) to convey exact information.

Performance Levels:

Satisfactory

Speaks clearly and audibly, providing the appropriate information and level of detail. Typically conveys the message on the first attempt. Answers questions accurately and directly.

Superior

Speech is direct and to the point. Speaks convincingly and with authority when appropriate. Maintains sensitivity to the audience while providing thorough information with the appropriate level of detail through the use of precise language.

47. WRITTEN COMMUNICATION – Communicates effectively in writing.

Level of Competency Required by Job:

Level 1: Write notes/e-mails. Completes forms with some open-ended responses (sentences).

Level 2: Write letters, articles/reports, and/or detailed descriptions of activities/occurrences.

Level 3: Write lengthy reports, instruction manuals, in-depth analyses/reviews of complex issues and/or articles for publication. Reviews the written work of others.

Examples of Behavioral Indicators:

- Writing includes the necessary information to convey the intended message.
- Sufficiently few errors in spelling, punctuation, grammar to not interfere with the intended message or distract the reader.
- Little editing or re-writing needed to produce a final product.
- Composes materials efficiently.
- Information is presented in a well organized manner.
- Tone and degree of formality are appropriate to the purpose and audience.

Performance Levels:

Satisfactory

Writes material that clearly communicates the necessary information; needs little editing.

Superior

Precisely uses words and organizes information in a way that enhances presentation of the message. Virtually no editing needed.