

**COMPETENCY MODEL FOR
GEOGRAPHIC INFORMATION SYSTEMS SPECIALIST
CLASS CODE 7213**

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

- 1. Reading Comprehension
- 4. Analytical Ability
- 5. Learning Ability
- 6. Attention to Detail
- 11. Initiative
- 20. Job Knowledge
- 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, bolded, and underlined*), examples of behavioral indicators, and satisfactory and superior performance levels.

1. **READING COMPREHENSION** – Comprehends and correctly applies information presented in written form. Makes correct inferences; draws accurate conclusions.

Level of Competency Required by Job:

- Level 1: Concrete, specific job-related information (work orders; instructions; material/equipment labels)
- Level 2: **General information related to field of work and assignments; (articles in trade publications; technical/instructional manuals; memos; letters; e-mails; reports)**
- Level 3: Abstract/complex information (highly technical articles/ reports in specialized area; legal or other regulatory material)

Examples of Behavioral Indicators:

- Follows written instructions correctly.
- Learns information presented in writing.
- Identifies relevant written information.
- Interprets written legal regulatory material accurately.

Performance Levels:

Satisfactory

Reads instructions correctly. Learns from manual and other printed material.

Superior

Learns from manual and may answer others' questions. Explains information presented in written form to others.

Reading Comprehension Areas

1. Knowledge of how to read, interpret, and extract information from maps, such as information contained in subdivisions, tracts, parcels, as-built plans, or surveys, sufficient to plot the data onto newly created maps, charts, graphs, or databases.
2. Knowledge of how to identify quality control issues, potential discrepancies, or errors in maps, such as missing lines, misalignments, spelling errors, inaccurate coordinate projection, and inaccurate legends, sufficient to compare newly generated computer maps to existing maps and ensure an accurate database.

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.

5. LEARNING ABILITY – Readily acquires and applies new information.

Level of Competency Required by Job:

- Level 1: Learn job-related information, rules, and procedures, and apply them correctly.
- Level 2: Learn and apply extensive job-related information correctly. Make reasonable inferences when specific information needed in a given instance was not presented.
- Level 3: **Access new job-related information via print or electronic media, in educational/training programs, and/or by speaking with others, and apply it correctly to the job.**

Examples of Behavioral Indicators:

- Recalls information presented in educational/training programs.
- Recognizes how to apply newly acquired information to the job.
- Applies new information to the job in a way that increases productivity.
- Applies “lessons learned” from prior work experiences to current work.
- Answers questions/coaches others who received the same instruction.

Performance Levels:

Satisfactory

Learns new information and applies it appropriately to situations/issues.

Superior

Readily acquires new information, makes appropriate inferences based on it, and integrates it with prior learning and experience to maximize its use in a variety of situations or with respect to a variety of issues.

6. ATTENTION TO DETAIL – Extremely careful in addressing all aspects of each work assignment in order to produce “completed staff work” and/or avoid any negative outcomes.

Level of Competency Required by Job:

- Level 1: Ensure all aspects of work assignment are completed as directed.
- Level 2: **Verify that each aspect of work assignment is properly completed; make logical inference regarding additional activities that may need to be performed to produce “completed staff work.”**
- Level 3: Include evaluation of final work/work product in its accomplishment; make adjustments as possible to improve.

Examples of Behavioral Indicators:

- Carefully checks all aspects of work for completion and accuracy before submitting.
- Identifies errors (for example, typo’s, computations, measurements, application of laws/rules/policies) and corrects them prior to submitting.
- Cross-checks work against available resources.
- Sets up a means of checks and balances to ensure work accuracy.
- Considers changes in final work product to ensure usability by recipient.
- Completes all revisions upon request.

Performance Levels:

Satisfactory

Ensures that each task accomplished represents “completed staff work.” No remaining details/inconsistencies for others to address.

Superior

All aspects of each task completed are verified to be correct. Identifies any foreseeable consequences of work that may need to be addressed and does so.

11. INITIATIVE – Generates activity that facilitates accomplishment of work.

Level of Competency Required by Job:

- Level 1: ***Offer to help co-workers and/or recognize things to do that facilitate work group accomplishment.***
- Level 2: Identify new tasks/projects to be undertaken and assist others with accomplishment of their work.
- Level 3: Determine additional work necessary to improve the function and productivity of the organization or its services to citizens or other customers.

Examples of Behavioral Indicators:

- Makes suggestions for improvement in work quality or quantity.
- Finds work to do when own work is slow rather than allow diminished personal productivity.
- Expands scope of work/responsibility in appropriate directions.
- Anticipates upcoming events in order to prepare for them.

Performance Levels:

Satisfactory

Generates goal directed activity rather than waiting to be told what to do. Anticipates what is likely to occur in order to be able to prepare; recognizes that preparation for (and clean-up after) a job is part of doing the job.

Superior

Actively pursues additional tasks/responsibilities that will facilitate effectiveness. Makes extensive preparations for upcoming events or expected changes.

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 various geographic information system (GIS) programs and software, such as ArcGIS, ArcGIS Pro, ArcGIS Online, ArcMap, and AutoCAD, sufficient to conduct analyses on field or existing data and draw or construct maps, charts, graphs, dashboards, and applications.
2. Knowledge of the best representation and necessary elements for displaying data, such as bar charts, line graphs, pie charts, layout, color, coordination, color intensity, legend placement, and shading, sufficient to create and/or enhance data displays for public settings.
3. Knowledge of projected or geographic coordinate systems, such as North American Datum of 1983 (NAD 83), California State Plane Coordinate System Zone 5, latitude, and longitude, sufficient to plot geographic information system (GIS) features on maps and drawings.
4. Knowledge of graphic reproduction equipment, such as plotters, printers, and/or large format scanners and printing devices, sufficient to properly enlarge or reduce maps, charts, or graphs.
5. Knowledge of various geographic information system (GIS) databases and applications, such as NavigateLA, GeoHub, and/or other system applications, sufficient to store and locate information used in map production.
6. Knowledge of different programming or scripting languages, such as Python, JavaScript, or Arcade, sufficient to create model builders, revise maps, or customize applications.
7. Knowledge of necessary mapping principles and components, such as streets, dimensions, north arrow, geometric construction, scaling, and proportions, sufficient to utilize this information while constructing and editing various maps.

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.