



## Los Angeles County Chief Executive Office

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### ***Class Specification:* GEOGRAPHIC INFORMATION SYSTEMS ANALYST**

**ITEM NUMBER:** 4413

**APPROVAL DATE:** 07/31/2012

#### **DEFINITION:**

Performs a variety of professional duties in support of County and departmental geographic information systems (GIS) databases and GIS capabilities; generates custom and standard maps, spatial analyses and other GIS products to meet customer requirements; utilizes GIS tools and utilities to convert data to GIS formats and performs data quality checking and correction.

#### **CLASSIFICATION STANDARDS:**

Positions allocable to this first level professional class are responsible for carrying out a wide range of difficult and responsible assignments in maintaining the accuracy and quality of GIS database information, developing cartographic products, and data analysis and visualization to support a wide variety of County or departmental functions, processes and analytical requirements. Work of this class requires a professional knowledge of the theory and principles of GIS software and database manipulation and product/output development. Assignments are made in terms of applying established GIS technology principles, methods, procedures and tools to the completion of well defined, moderately difficult GIS functions and projects. Work is reviewed for accuracy and adherence with established methods, procedures and standards.

Positions in this class differ from those in the higher level class of Senior GIS Analyst in that Senior GIS Analysts independently perform work of considerable difficulty and assignments often require adapting conventional methods to the issues involved and interpreting findings in terms of their significance. Finished products are reviewed for adequacy of results and soundness of the procedures and methods used.

Positions in this class differ from those in the lower level technical class of GIS Technician in that GIS Technicians receive specific and detailed instructions as to methods, procedures and guidelines and perform their work in accordance with these instructions, referring deviations to the supervisor for further guidance. Work is reviewed in considerable detail for completeness and accuracy.

#### **EXAMPLES OF DUTIES:**

#### **ESSENTIAL DUTIES:**

Formats and generates a variety of GIS products including standard and custom maps and map series, standard map templates, shape files, graphics, tables and reports; performs data searches and retrievals.

Extracts and organizes data and performs quality control operations to ensure the accuracy and completeness of all data; researches source documents and/or coordinates with others to resolve missing or conflicting data and other anomalies.

Establishes map area and develops symbology, including thematic and category symbols; uses cartographic and design principles to include legends, insets and reference information.

Overlays maps over aerial imagery to produce custom products and verify and correct geospatial data.

Performs standard spatial analyses such as buffering, spatial overlays and distance calculations using established methods and procedures.

Maintains and updates geospatial databases; extracts, cleans, adjusts and converts data and information from non-GIS systems into GIS formats; converts addresses into GIS formats using geocoding routines.

Researches and corrects problems with data using spatial and logical analyses; researches and verifies legal descriptions and boundaries; uses scripts, queries and other tools to obtain and/or correct missing or incorrect spatial and attribute data.

Converts spatial data from one coordinate system to another, using basic geodetic principles; geo-references digital maps to align with real ground locations, using survey monument, GPS and other data as controls; processes, loads, reviews and updates data in GIS database layers; imports database updates.

Participates in developing and implementing queries, scripts and instructions of moderate difficulty.

Assists in the design, development, testing and implementation of GIS applications of routine to moderate difficulty to meet customer needs and enterprise requirements.

Operates GIS-specific hardware including large format plotters and scanners.

May collect field data using GPS or other equipment as needed; may assist in training and mentoring newer GIS staff members.

#### *MINIMUM REQUIREMENTS:*

#### **TRAINING AND EXPERIENCE:**

#### **Option 1**

A Bachelor's degree from an accredited college or university with a major in geographic information systems, GIScience, geography or a closely related field that required equivalent coursework in geographic information systems - AND - either satisfactory completion of a GIS internship or at least six months of experience in the uses and operations of geographic information systems.

### **Option 2**

An Associate's degree in geographic information systems, GIScience, geography or a field requiring at least 18 units of equivalent coursework in geographic information systems - AND - three (3) years of experience performing technical duties in support of geographic information systems using standard GIS tools to populate and manipulate GIS databases and generate GIS products.

Successful completion of a County recognized GIS certificate program requiring at least 18 units of coursework may be substituted for the required education.

### **Option 3**

Two (2) years of experience using standard GIS tools and utilities to enter and correct data in GIS databases and provide other technical support for GIS systems and generate GIS products at the level of County of Los Angeles GIS Technician.

### **Option 4**

A Master's degree or higher from an accredited college or university in geographic information systems, GIScience, geography or a closely related field that required equivalent coursework in geographic information systems.

### **LICENSE:**

A valid California Class C Driver License or the ability to utilize an alternative method of transportation when needed to carry out job-related essential functions.

### **PHYSICAL CLASS:**

2 - Light.

Positions within this class require light physical effort that may include occasional light lifting to a 10 pound limit and some bending, stooping, or squatting. Considerable walking may be involved.