

CLASS SPECIFICATION
GIS Technician I

FLSA Status: Covered
Union Representation: Professional and Technical Employees (PTE)

GENERAL PURPOSE

Under general supervision, performs the more routine assignments in the operation and use of Geographic Information Systems (GIS); assists in maintaining and updating layers of the GIS; enters, updates and maintains relational database data; performs basic spatial analyses; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

GIS Technician I is the entry-level class in the GIS Technician series. Incumbents are responsible for performing routine specialized and detailed GIS mapping and analysis duties. Incumbents enter, update and maintain GIS data, prepare and produce maps and other graphic representations and perform basic spatial analyses.

GIS Technician I is distinguished from GIS Technician II in that incumbents in the latter class perform more complex and difficult GIS mapping and analysis duties requiring a more thorough understanding of GIS techniques, processes and procedures and the greater exercise of problem-solving skills. GIS Technicians I perform standard to moderately difficult tasks, are assigned to work on smaller projects or discrete portions of larger projects and are expected to exercise basic problem-solving skills.

GIS Technician is distinguished from other related engineering technician classes by the regular and continuous assignment of GIS mapping and related duties. GIS Technician is distinguished from related Information Technology classes by their use of, rather than programming support to, GIS software.

ESSENTIAL DUTIES AND RESPONSIBILITIES

Any one position in this class may not perform all the duties listed below, nor do the listed examples of duties include all similar and related duties that may be assigned to this class.

1. Performs routine GIS data maintenance, manipulation, analysis, extraction and generation assignments; performs basic data research, investigation and verification; updates and maintains files of digital pictures of streets and street problems for bureau use; constructs data tables; performs record keeping and inventory; documents and files data sources and map files for future reference.
2. Prepares and produces basic maps and other graphic representations displaying layers and attribute data from the database, using cartographic techniques to represent spatial data; enters, updates and maintains data layers, using GIS tools, CAD tools and relational databases; enters attribute data pertaining to specific features into a relational database; incorporates maps, charts, spreadsheet data and text into reports.

3. Prepares and updates maps, drawings, plans, spreadsheets, data files and documentation.
4. Performs basic spatial analysis including buffering, and zone consolidation; interprets plans, photographs, maps and legal descriptions.
5. Codes and digitizes maps and geographical feature data into various GIS layers.
6. Responds to requests from the public for GIS data.
7. Consults with supervisor and client regarding scope of mapping requests; researches available data; develops map layouts and executes design drafts.
8. Conducts site visits to verify and update data.
9. Assists in resolving and troubleshooting basic GIS-related problems; maintains computer hardware and accessories; provides basic GIS software training for bureau personnel.

OTHER DUTIES

1. Attends staff meetings, training and conferences.
2. Provides GIS support for other software applications.

MINIMUM QUALIFICATIONS

Knowledge of:

1. Basic geographic information system concepts, practices and techniques, including computer mapping and attribute data conversion, transfer, manipulation and analysis.
2. Basic GIS software, tools and applications.
3. Relational database concepts, methods and practices.
4. CAD software and hardware drafting media.
5. Terminology, methods and techniques used in engineering maps and records.
6. Data gathering and research skills.
7. Use of word processing, spreadsheet and database software.
8. Operating system fundamentals and procedures for the use of computer systems and related equipment.
9. Algebra, geometry and trigonometry as applied to engineering and mapping formulas.

Ability to:

1. Utilize basic GIS software, computer-aided drafting, graphics and other applications to carry out assigned responsibilities.
2. Perform basic engineering computations and computer analyses.
3. Independently perform basic GIS assignments with initiative and creativity.
4. Interpret maps, graphs, satellite and aerial images and geologic conditions.
5. Recognize and resolve standard discrepancies in attribute data.
6. Perform basic spatial analyses.
7. Prepare accurate GIS cartographic products.
8. Communicate effectively orally and in writing.
9. Establish and maintain effective working relationships with bureau staff and management, members of the public and others encountered in the course of work.

Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from high school or G.E.D. equivalent, technical school or vocational school, supplemented by course work in architectural, civil and mechanical engineering drafting and geographical information systems; or an equivalent combination of training and experience. Experience in a public agency is preferred.

Licenses; Certificates; Special Requirements:

A valid state driver's license may be required for certain assignments.

PHYSICAL AND MENTAL DEMANDS

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depends, in part, on the specific requirements for the job, the limitations related to disability and the ability of the hiring bureau to accommodate the limitation.

Class History:

- Adopted: 08-30-96 Engineering Technician I (3107) – GIS specialty created.
Revised: 07-01-01 Spec revised as part of the COPPEA Classification and Compensation study. GIS Technician I (6061) class created from the following COPPEA classes:
3107 Technician I (GIS specialty)
Revised: 08-01-06 Spec history revised to reflect pre-2001 COPPEA Study history. Spec formatting modified.
Revised: 08-07-06 Revised FLSA status from “Non-exempt” to “Covered.”
June 2009 - Change Job Class number from 6061 to 30000341, due to system change.

July 2017 – Updated union name from COPPEA to PTE