

## **GEOGRAPHIC INFORMATION SYSTEM SPECIALIST**

**DISTINGUISHING FEATURES OF THE CLASS:** The work involves responsibility for overseeing the development, maintenance and operation of a Geographic Information System (GIS). The duties vary according to assignment; however, in general, the incumbent assists the conversion of digital and non-digital data to a GIS based system and the ongoing modifications, maintenance and operation of the system. The incumbent also performs other related professional or technical duties specific to the assignment such as planning activities, creating and processing requests for maps, and/or maintaining a computer network. This class differs from Geographic Information System Technician in that a Geographic Information System Specialist performs a greater scope of duties, has greater independence of action and has overall responsibility for a Geographic Information System. The work is performed under the general supervision of a department head and/or GIS Administrator with considerable leeway allowed for exercising independent judgment in carrying out the details of the work. Does related work as required.

### **TYPICAL WORK ACTIVITIES:**

Leads and oversees the conversion of Computer Aided Design data and other digital and non-digital data to a GIS based system used to store, manipulate and analyze data;

Oversees the work of employees involved in GIS related development and projects;

Contacts consultants to obtain information relative to GIS development and use and special projects;

Meets with administrators, municipal planning representatives and system users to discuss and plan the use and integration of GIS technology within a department and/or across departments;

Meets with GIS Database Programmer or other Computer Programmers to design or acquire computer programs necessary to convert data to a GIS based system;

Performs tasks to ensure that GIS data is compliant with standard GIS data design practices including creating meta-data sets and creating topologies to define the interrelations of the data;

Trains other employees in GIS use;

Installs, tests, configures and diagnoses and resolves problems with computer hardware, software and peripheral equipment as required;  
Processes requests for maps, obtains digital and non-digital data and creates maps;  
Creates detailed records and reports relative to the work;  
May perform fieldwork to obtain and/or verify data.

**FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

Good knowledge of the concepts, practices and techniques related to developing, maintaining and operating a GIS;  
Good knowledge of the practices and techniques developing and maintaining databases;  
Good knowledge of the practices and techniques related to maintaining, testing and configuring computer hardware, software and peripheral equipment;  
Good knowledge of the practices and techniques related to the professional planning process;  
Working knowledge of municipal departments;  
Skill in the use of map making equipment;  
Ability to perform close, detail work involving considerable visual effort and concentration;  
Ability to participate in assigned projects and lay-out work for others;  
Ability to operate a personal computer and utilize common office software programs including word processing, spreadsheets and databases;  
Ability to understand and interpret complex oral instructions and/or written directions;  
Ability to communicate effectively both orally and in writing;  
Ability to analyze and organize data and prepare records and reports;  
Ability to establish and maintain effective working relationships with others;  
Physical condition commensurate with the demands of the position.

**MINIMUM QUALIFICATIONS:** Either:

- (A) Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with a Bachelor's degree in

geography, urban planning, environmental studies or closely related field, and two (2) years of experience administering a Geographic Information System or other computerized mapping and assessment system; or

- (B) Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with a Associate's degree in engineering science, mechanical design technology, mechanical engineering technology, computer science or closely related field, and four (4) years of experience as indicated in (A); or
- (C) An equivalent combination of training and experience as defined by the limits of (A) and (B).

**NOTE:** Advanced course work beyond the Bachelor's degree level in geographic information systems, planning, or closely related field may be substituted for the experience indicated in (a) with three (3) semester hours being equal to three (3) months experience up to a maximum of one year.

**SPECIAL REQUIREMENT:** Possession of a valid New York State driver's license appropriate to the vehicles operated or otherwise demonstrate the ability to meet the transportation needs of the job.