

Jurisdiction: City of Ithaca  
Jurisdictional Class: Competitive  
Adopted: 04/06/05  
Revised: 09/15/10, 09/07/22

## **GEOGRAPHIC INFORMATION SYSTEM ADMINISTRATOR**

**DISTINGUISHING FEATURES OF THE CLASS:** The work involves responsibility for the design, development, implementation, operation, management, maintenance and expansion of a computerized multidisciplinary Geographic Information System (GIS). The duties vary according to assignment; however, in general, the incumbent creates and oversees a GIS program, both technically and administratively including selecting software and hardware systems, designing and implementing data and application development projects, and planning, managing and integrating GIS technology. The incumbent also performs other related professional or technical duties specific to the assignment such as planning activities, engineering activities such as modeling, creating and processing requests for maps, and/or maintaining computer networks and equipment specific to the GIS. This class differs from Geographic Information System Specialist in that the Geographic Information System Administrator has responsibility for developing, managing and integrating the GIS in its entirety, has greater independence of action, and requires broader knowledge of the theory, principles and practices behind GIS. The work is performed under the general supervision of a department head or other 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:**

Coordinates the development and integration of GIS in various City departments;  
Develops agreements, contracts and systems for data acquisition and computer application development;  
Develops and maintains web-based GIS applications for spatial data delivery to City users and public via the internet;  
Designs, implements and supervises mapping, data and analysis projects;  
Supervises and oversees the conversion of Computer Aided Design data and other digital and non-digital data to a GIS based system, including the field collection of data;  
Supervises the work of employees involved in GIS related development and projects including the inventory of municipal assets;  
Meets with GIS Database Programmer or other Computer Programmers to design or acquire computer programs necessary to convert data to a GIS based system and meet the needs of the department;  
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;  
Disseminates geographic and other data to agencies, city departments and the public;  
Analyzes user needs for GIS and data applications;  
Trains other employees in the use of GIS;  
Creates and maintains written user manuals for the geographic information system;  
Processes requests for maps, obtains digital and non-digital data and creates maps;  
Researches, evaluates and selects software and technologies for the GIS;  
Writes requests for proposals and technical specifications for the GIS.

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

Thorough knowledge of the concepts, practices and techniques related to the design, development and management of a geographic information system; thorough knowledge of current research and developments in the field of GIS; thorough knowledge of various GIS applications, including ArcGIS, MapInfo and related software; good knowledge of relational database management systems; good knowledge of advanced GIS and cartographic concepts and terminology; 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; good knowledge of the principles and practices of drafting, mapping and graphic visual methods as applied to community planning; working knowledge of municipal departments; skill in the use of map making equipment; ability to formulate methodologies and design database systems for the collection and storage of spatial data; 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 train GIS users and work effectively with people at different skill levels; ability to understand and interpret complex oral instructions and/or written directions; ability to communicate effectively both orally and in writing; ability to prepare well-constructed oral and written communications, reports, contracts and specifications; ability to establish and maintain effective working relationships with others; ability to effectively work with and serve a diverse local community; physical condition commensurate with the demands of the position.

**MINIMUM QUALIFICATIONS:** Either:

- A. Possession of a Master's degree in geography, planning, engineering or a closely related field with similar course curriculum, and three (3) years of full-time paid experience, or its part-time paid and/or volunteer equivalent, administering a Geographic Information System or other computerized mapping and assessment system; or
- B. Possession of a Bachelor's degree in geography, planning, engineering or a closely related field with similar course curriculum, and five (5) 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: College degrees must have been awarded by a college or university accredited by a regional, national, or specialized agency recognized as an accrediting agency by the U.S. Department of Education and/or U.S. Secretary of Education. If an applicant's degree was awarded by an educational institution outside the United States and its territories, the applicant must provide independent verification of equivalency. A list of acceptable companies who provide this service can be found at <https://www.cs.ny.gov/jobseeker/degrees.cfm>. Applicants are responsible for payment of the required evaluation fee.

**SPECIAL REQUIREMENT:** Possession of a valid driver license appropriate to the vehicles operated or otherwise demonstrated ability to meet the transportation needs of the job.