

OCCUPATIONAL GROUP: Information Technology

CLASS FAMILY: Geographic Information Systems

CLASS FAMILY DESCRIPTION:

This family of positions is a blend which includes those at a Computer Technology level who perform various levels of support and management, as well as those who are the users of the technology whose primary responsibility is to utilize and manage specific geospatial software in various levels of support roles for agencies in the State of West Virginia. This would include all activities that involve applying scientific and analytical processes to planning, design, and implementation of new and improved methods to utilize spatial data to enhance data management and business operations.

CLASS TITLE: Geographic Information Systems Technician

DISTINGUISHING CHARACTERISTICS:

These positions, at the entry-level, perform work in multi-tier Geographic Information System (GIS) operations and services for a state agency or department. Duties include digital data entry and maintenance, execution of applications, and production of maps and related graphic output and reports. These positions do not have budgetary or supervisory responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Performs low to mid-level GIS operations including manual data entry (e.g., digitizing, scanning, keyboard entry, etc.)
- Plot and map production, low-level GIS analysis, generating reports, and answering information requests
- Assists with GIS hardware and software operations such as system setup and updates, installation and test, networking and peripheral device connectivity.
- Assists in investigating, evaluating and recommending new data sources, software, equipment and techniques for improving geospatial analysis and services.
- Assists in developing and following GIS database standards for content, format, design, maintenance and quality assurance procedures.
- Maintains technical equipment; assists employees with technical issues.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of basic automated mapping and geospatial processing methods, techniques and capabilities.
- Knowledge of basic GIS database structures and geographic data sources.
- Knowledge of basic cartographic principles and practices pertaining to map symbols, line work, colors and patterns, thematic content, etc.

- Knowledge of basic map scales, projections and coordinate systems.
- Ability to operate a computer keyboard, mouse and peripherals such as a digitizing cursor.
- Ability to gather and interpret basic geographic information from various data sources such as maps, graphs, charts, planimetric drawings, survey data, aerial photography and satellite imagery.
- Ability to use basic automated methods and techniques for geospatial data input, processing and analysis.
- Ability to understand basic geospatial technical concepts and terminology and to convey this information to supervisors, other employees, administrators and public officials.
- Ability to effectively communicate orally and in writing.
- Ability to work in a collaborative team environment under minimal supervision.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree from a regionally accredited four-year college or university.

Experience: One year of full-time or equivalent part-time paid experience in Geographic Information Technology

Education & Experience Substitution: None

Certificates, Licenses, Registrations: None

CLASS TITLE: Geographic Information Systems Specialist 1

DISTINGUISHING CHARACTERISTICS:

These positions, at the entry-level, perform technical work in geographic information systems (GIS) analysis, design and programming. Work involves design and maintenance of data resources and operation of GIS software such as analysis, supplication development and user support. These positions do not have budgetary or supervisory responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Performs GIS analysis.
- Creates maps for the organization to represent geographically correlated information.
- Manages, updates and maintains a geodatabase using file types which are specific to use within a GIS system; edits/reformats data to make the data collected available in map form.
- Analyzes user organization's functional requirements and develops GIS application designs.
- Writes and tests GIS application programs; prepares documentation of GIS application programs.
- Prepares GIS application user manuals; trains user staff in the operation of GIS applications.
- Provides user support for GIS application programs.

- Performs GIS hardware and software operations; implementation, operation, and enhancement of the GIS software.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of GIS software used by employing agency.
- Knowledge of automated mapping and spatial information processing methods and techniques.
- Knowledge of the capabilities of automated mapping and geographic information processing systems.
- Knowledge of cartographic design and drafting principles and automated mapping.
- Knowledge of GIS hardware and software components, data communication, and network methods and techniques.
- Knowledge of employing agency's programs to produce the necessary information required.
- Ability to support GIS application programs.
- Ability to locate access available GIS resources for needed data.
- Ability to effectively communicate orally and in writing.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree from a regionally accredited four-year college or university.

Experience: 0-2 years

Education & Experience Substitution: A professional diploma from National Geospatial-Intelligence College of the National Geospatial-Intelligence Agency.

Certificates, Licenses, Registrations: None

CLASS TITLE: Geographic Information Systems Specialist 2

DISTINGUISHING CHARACTERISTICS:

These positions, at the full-performance level, perform technical work in geographic information systems (GIS) analysis, application design, programming, and provide user support. They may also manage and operate remote sensing hardware and software resources within the context of programs and policy directives. These positions may provide high level GIS analysis, application development, user support, coordination of remote sensing hardware and software activities and assistance in managing remote sensing hardware, software, and service vendor contracts. These positions do not have budgetary or supervisory responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Performs complex GIS analysis.
- Performs GIS and/or remote sensing hardware and software operations; implements, operates, and monitors performance of hardware and software; evaluates requirements

for equipment upgrades and contributes to the selection and procurement of hardware, software, and related services; adheres to applicable standards for hardware and software; coordinates maintenance and service contracts with hardware and software vendors .

- Analyzes user organization functional requirement; designs, develops, codes, documents, tests and maintains computer application programs for GIS and/or remote sensing application designs; provide professional input, such as scope, requirements and specifications for projects, plans, and documents; interview and communicate with system users in order to develop comprehensive application requirements sufficient to initiate and develop business applications. .
- Provides user support for application programs; writes and tests application programs; prepares documentation of application programs; prepares application user manuals; trains user staff in the operation of applications
- Perform data maintenance on complex and mission critical GIS data sets; diagnoses and resolves complex application and database issues in order to correct errors and provide improved performance or functionality.
- Coordinate regularly with OT staff on the development and support of related systems and occasionally respond to after-hours system support issues

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of GIS software used by employing agency.
- Knowledge of automated mapping and spatial information processing methods and techniques.
- Knowledge of the capabilities of automated mapping and geographic information processing systems.
- Knowledge of cartographic design and drafting principles, automated mapping and GIS database design.
- Knowledge of GIS and /or remote sensing hardware and software components, data communication, and network methods and techniques.
- Ability to reason logically and to communicate effectively with system users to translate application concepts into system applications.
- Ability to translate technical concepts and terminology in terms understandable to system users.
- Ability to establish and maintain effective relationships with user departments, administrative officials, and employees.
- Ability to design, program and support GIS application
- Ability to effectively communicate orally and in writing.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree from a regionally accredited four-year college or university.

Experience: Five years of full-time or equivalent part-time paid experience in Geographic Information Technology

Education & Experience Substitution: Master's degree from an accredited college or university may be substituted for 2 years on the required experience. Doctorate degree from an accredited college or university may be substituted for three years of the required experience.

(Preference may be given to those with a major in geography, cartography, geology, forestry, natural or earth sciences, environmental sciences, engineering, engineering technology, mathematics, computer sciences.)

Certificates, Licenses, Registrations: None

CLASS TITLE: Geographic Information Systems Specialist 3

DISTINGUISHING CHARACTERISTICS:

These positions, at the advanced level, perform complex technical work in geographic information systems (GIS) analysis and application design and programming. Work involves design and maintenance of data resources and operation of GIS software within the context of programs and policy directives. Work also includes advanced GIS analysis, application development and other GIS related activities. These positions serve as lead workers that train and develop skills of lower level GIS Staff. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Performs complex GIS analysis.
- Performs GIS hardware and software operations; implements, operates, and monitors performance of hardware and software; evaluates requirements for equipment upgrades and contributes to the selection and procurement of hardware, software, and related services; adheres to applicable standards for hardware and software; coordinates maintenance and service contracts with hardware and software vendors .
- Analyzes user organization functional requirement; designs, develops, codes, documents, tests and maintains computer application programs for GIS application designs; provide professional input, such as scope, requirements and specifications for projects, plans, and documents; interview and communicate with system users in order to develop comprehensive application requirements sufficient to initiate and develop business applications.
- Provides user support for application programs; writes and tests application programs; prepares documentation of application programs; prepares application user manuals; trains user staff in the operation of applications
- Perform data maintenance on complex and mission critical GIS data sets; diagnoses and resolves complex application and database issues in order to correct errors and provide improved performance or functionality.
- Assists in designing and enforcement of GIS database standards for content.
- Investigates and recommends sources and approaches for automating GIS database elements.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of GIS software used by employing agency.

- Knowledge of automated mapping and spatial information processing methods and techniques.
- Knowledge of the capabilities of automated mapping and geographic information processing systems.
- Knowledge of cartographic design and drafting principles, automated mapping and GIS database design.
- Knowledge of GIS and /or remote sensing hardware and software components, data communication, and network methods and techniques.
- Ability to reason logically and to communicate effectively with system users to translate application concepts into system applications.
- Ability to translate technical concepts and terminology in terms understandable to system users.
- Ability to establish and maintain effective relationships with user departments, administrative officials, and employees.
- Ability to design, program and support GIS application
- Ability to effectively communicate orally and in writing.
- Ability to perform as a lead worker.

MINIMUM QUALIFICATIONS:

Education: Bachelor’s degree from a regionally accredited four-year college or university. Preference may be given to those with a major in geography, cartography, geology, forestry, natural or earth sciences, environmental sciences, engineering, engineering technology, mathematics, computer sciences.)

Experience: Five years of full-time or equivalent part-time paid experience in Geographic Information Technology

Education & Experience Substitution: A professional diploma from National Geospatial-Intelligence College of the National Geospatial-Intelligence Agency may substitute for the training. Master’s degree from an accredited college or university may be substituted for 2 years on the required experience. Doctorate degree from an accredited college or university may be substituted for three years of the required experience.

Certificates, Licenses, Registrations: None

CLASS TITLE: Geographic Information Systems Specialist 4

DISTINGUISHING CHARACTERISTICS:

These positions, at the advanced-level, perform technical work in operating and managing GIS hardware and software resources. Work involves design, operation, and management of GIS hardware and software resources within the context of programs and policy directives. Work also includes coordination of GIS hardware and software activities; assistance in managing GIS hardware, software, and service vendor contracts; participation in planning and organizing system development activities. These positions also perform other GIS hardware and software-related activities. They may exercise supervision over a staff of subordinate GIS positions, and may have budgetary responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Manages hardware and software resources of GIS; confers and coordinates with GIS Manager, user organizations, and GIS personnel to determine user needs.
- Oversees all GIS hardware and software operations; installation, testing, and acceptance; monitor performance and conduct system performance evaluations; develop procedures for system backup and oversee backup operations.
- Assists in coordinating contracts with GIS hardware, software, and related service vendors; coordinates maintenance and service contracts with hardware and software vendors.
- Oversees and optimizes data communications and monitors network transaction flow in adherence to applicable standards for computer hardware, software, and communication networks.
- Responds to user questions and resolves system operation problems.
- Evaluates requirements for system upgrades and contributes to the selection and procurement of hardware, software, and related services.
- Performs and assists in application design and development.
- May supervise GIS staff associated with implementation, operation, and enhancement of GIS hardware and software.
- May oversee the preparation of budget and/or grant request documents covering staff, equipment requirements, and special projects.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of automated mapping and spatial information processing methods and techniques.
- Knowledge of the capabilities of automated mapping and geographic information processing systems.
- Knowledge of cartographic principles, automated mapping, GIS database design and structure.
- Knowledge of GIS hardware and software components, data communication, and network methods and techniques.
- Ability to coordinate with GIS staff and users on system hardware and software needs and issues.
- Ability to translate technical concepts and terminology in terms understandable to management, department officials, and system users.
- Ability to establish and maintain effective relationships with user departments, administrative officials, and employees.
- Ability to communicate effectively, orally and in writing.
- Ability to supervise the work of others.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree from a regionally accredited four-year college or university. Preference may be given to those with a major in geography, cartography, geology, forestry,

natural or earth sciences, environmental sciences, engineering, engineering technology, mathematics, computer sciences.

Experience: Five years of full-time or equivalent part-time paid experience in Geographic Information Technology

Education & Experience Substitution: A professional diploma from National Geospatial-Intelligence College of the National Geospatial-Intelligence Agency may substitute for the training. Master's degree from an accredited college or university may be substituted for 2 years on the required experience. Doctorate degree from an accredited college or university may be substituted for three years of the required experience.

Certificates, Licenses, Registrations: None

CLASS TITLE: Geographic Information Systems Database Administrator

DISTINGUISHING CHARACTERISTICS:

These positions, at the entry-level, perform technical work that involves Geographic Information Systems (GIS) database creation and maintenance activities relating to the development of GIS data resources within the context of agency programs and policy directives. Work includes the acquisition, processing, conversion and update of data to augment existing spatial databases, implementing spatial metadata policy, spatial accuracy assessment, and database design relating to specific applications development projects. These positions may assist a GIS Database Administrator 2 with agency database management decisions and tasks. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Conducts acquisition, processing, translation, conversion and loading of new spatial data used for decision support analysis and agency program requirements; develop concept, budget requirements, timelines, databases and maintenance schedules.
- Provide mapping and spatial analysis support to staff and programs.
- Implements quality control procedures related to spatial accuracy assessment.
- Creates efficient database designs in response to applications developer needs for specific projects.
- Maintains spatial metadata documentation for specific components of the spatial database.
- Conducts research in the areas of new geographic information technology that could be used by agency for efficient program accomplishment tracking and reporting.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of automated and spatial information processing methods and techniques.
- Knowledge of the capabilities of automated mapping and geographic information processing systems.

- Knowledge of cartographic principles, automated mapping, GIS database design and structure.
- Knowledge of both web based and mobile geospatial technologies and applications that facilitate GIS access by inexperienced users.
- Knowledge of cartographic principles, automated mapping, and database structure.
- Knowledge of data conversion, translation, and transfer methods and techniques.
- Ability to interact effectively with and establish rapport with diverse teams and groups of people.
- Ability to communicate effectively orally and in writing.

MINIMUM QUALIFICATIONS:

Education: Bachelor’s degree from a regionally accredited four-year college or university. Preference may be given to those with a major in geography, cartography, geology, forestry, natural or earth sciences, environmental sciences, engineering, engineering technology, mathematics, computer sciences.

Experience: Five years of full-time or equivalent part-time paid experience in Geographic Information Technology, including database management.

Education & Experience Substitution: Master’s degree from an accredited college or university may be substituted for 2 years on the required experience.

Doctorate degree from an accredited college or university may be substituted for three years of the required experience.

Certificates, Licenses, Registrations: None

CLASS TITLE: Geographic Information Systems Manager 1

DISTINGUISHING CHARACTERISTICS:

These positions, at the full-performance level, perform administrative and supervisory duties in directing the Geographic Information Systems within a smaller agency program, or as a first level or specialty function administrator in a large comprehensive GIS state agency. These positions may oversee a unit of technical staff that performs functions such as geographic information systems applications programming, global positioning system support, remote sensing, spatial analysis, decision support and other technical computing needs. These positions may set and stay within a budget. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Organizes, assigns, directs and reviews the work of a small group of professional or technical personnel in the operation of an agency geographic information systems function.
- Plans work schedules and set priorities to make the most efficient use of available personnel and equipment.
- Analyzes agency operations and determines feasibility and/or costs for all phases of geographic information system implementation.

- Analyzes and establishes geographic information system unit procedures and work standards; sets standards for equipment maintenance and troubleshooting.
- Advises staff and coordinates the resolution of hardware and software problems.
- Directs the design, development and implementation of new systems and new applications; reviews system expansion proposals and recommends the purchase of new equipment; may develop equipment specifications proposals or new system evaluation standards; may coordinate the installation of new equipment.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of the uses and potentials of modern geographic information systems equipment and their respective advantages and limitations.
- Knowledge of state purchasing rules and guidelines in order to write, evaluate and negotiate equipment and software procurement.
- Ability work effectively with users, geographic information systems personnel, and vendor representatives in resolving equipment and operations problems.
- Ability to prepare and present written and oral reports on equipment utilization and individual and group performance characteristics.
- Ability to plan the activities of and supervise geographic information systems personnel.
- Ability to devise work and production schedules to meet user requirements as well as modify these same schedules to meet changing demands on personnel and equipment in emergency situations.
- Ability to evaluate equipment and operational problems and working with technicians to identify problems and formulate solutions.
- Ability to work effectively with agency officials and the general public.
- Ability to communicate effectively, orally and in writing.

MINIMUM QUALIFICATIONS:

Education: Bachelor’s degree from a regionally accredited four-year college or university. Preference may be given to those with a major in geography, cartography, geology, forestry, natural or earth sciences, environmental sciences, engineering, engineering technology, mathematics, computer sciences.

Experience: Five years of full-time or equivalent part-time paid experience in Geographic Information Technology.

Education & Experience Substitution: Master’s degree from an accredited college or university may be substituted for 2 years on the required experience.

Doctorate degree from an accredited college or university may be substituted for three years of the required experience.

Certificates, Licenses, Registrations: None

CLASS TITLE: Geographic Information Systems Manager 2

DISTINGUISHING CHARACTERISTICS:

These positions, at the advanced level, perform administrative and supervisory duties in directing the Geographic Information Systems within a large State agency. These positions may oversee several units of professional, paraprofessional, technical and supervisory staff that perform functions such as geographic information systems applications programming, global positioning system support, remote sensing, spatial analysis, decision support and other technical computing needs. These positions may set and stay within a budget. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Organizes, assigns, directs and reviews the work of a small group of professional or technical personnel in the operation of an agency geographic information systems function.
- Plans work schedules and set priorities to make the most efficient use of available personnel and equipment.
- Analyzes agency operations and determines feasibility and/or costs for all phases of geographic information system implementation.
- Analyzes and establishes geographic information system unit procedures and work standards; sets standards for equipment maintenance and troubleshooting.
- Advises staff and coordinates the resolution of hardware and software problems.
- Assists management in special studies requiring geospatial technologies and geospatial analysis.
- Directs the design, development and implementation of new systems and new applications; reviews system expansion proposals and recommends the purchase of new equipment; may develop equipment specifications proposals or new system evaluation standards; may coordinate the installation of new equipment.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of spatial data structures, automated mapping, spatial information processing methods and their applications.
- Knowledge of capabilities of automated mapping and geographic information processing systems.
- Knowledge of proposal preparation, program budgeting, and contract management.
- Knowledge of the uses and potentials of modern geographic information systems equipment and their respective advantages and limitations.
- Knowledge of the principles underlying geographic information systems operations, modern business methods and procedures, concepts of process flow charting and evaluation, and appropriate business recovery principles and requirements.
- Knowledge of state purchasing rules and guidelines in order to write, evaluate and negotiate equipment and software procurement.
- Ability to plan the activities of and supervise geographic information systems personnel.
- Ability to make decisions based on factual data and to evaluate progress or success of computerized projects and systems.

- Ability to devise work and production schedules to meet user requirements as well as modify these same schedules to meet changing demands on personnel and equipment in emergency situations.
- Ability to establish and maintain liaisons with other agencies, public officials and employees.
- Ability to communicate effectively through oral and written communication skills, including technical writing skills.
- Ability to evaluate equipment and operational problems and working with technicians to identify problems and formulate solutions.

MINIMUM QUALIFICATIONS:

Education: Bachelor’s degree from a regionally accredited four-year college or university. Preference may be given to those with a major in geography, cartography, geology, forestry, natural or earth sciences, environmental sciences, engineering, engineering technology, mathematics, computer sciences.

Experience: Eight years of full-time or equivalent part-time paid experience in Geographic Information Technology.

Education & Experience Substitution: Master’s degree from an accredited college or university may be substituted for 2 years on the required experience.

Doctorate degree from an accredited college or university may be substituted for three years of the required experience.

Certificates, Licenses, Registrations: None

CLASS TITLE: Geographic Information Systems State Coordinator

DISTINGUISHING CHARACTERISTICS:

This position works under the direction of the lead GIS administrative agency, currently the West Virginia Geological and Economic Survey, to administer and supervise the activities of the State GIS program involved in planning, organization, coordination and delivery of high level Geographic Information System (GIS) services to agencies of state government. Work involves responsibility for providing technical expertise and supervision of day-to-day implementation and operation of the state's GIS within the context of programs and policy directives of the State GIS Steering Committee and the WV GIS Development Plan. This position may supervise a staff of subordinate GIS positions. This position has significant budgetary responsibilities. Performs related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Develops and recommends to the lead GIS administrative agency an annual budget, work program, and staffing plan for the State GIS Coordinator’s Office, and administers the operation of the Office.

- Consults with the GIS Steering Committee comprised GIS specialists both inside and outside of state government to implement the GIS development plan, and establishes GIS subcommittees and advisory groups, as appropriate, to address and resolve specific GIS technical and policy issues.
- Assists in the development of a GIS Technical Center in cooperation with West Virginia University (WVU) to provide technical support in the implementation and operation of a statewide GIS; negotiates and monitors performance of annual service contract with same.
- Negotiates and executes various agreements as necessary with individual agencies/organizations, both public and private, for services relevant to implementation of the WV GIS Development Plan.
- Coordinates development and implementation of statewide GIS hardware, software, database and communications standards and operating procedures among user agencies.
- Confers and coordinates with GIS user organizations and personnel throughout the state to determine user needs, promote GIS use, education and professional development.
- Investigates funding sources and prepares applications for funds for the statewide GIS development.
- May plan, direct and review work of subordinates; performs administrative duties related to budget, personnel and purchasing activities.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of spatial data structures, automated mapping, spatial information processing methods and their applications.
- Knowledge of capabilities of automated mapping and geographic information processing systems.
- Knowledge of proposal preparation, program budgeting, and contract management.
- Knowledge of the principles underlying geographic information systems operations, modern business methods and procedures, concepts of process flow charting and evaluation, and appropriate business recovery principles and requirements.
- Knowledge of program budgeting and contract management.
- Knowledge of state purchasing rules and guidelines in order to write, evaluate and negotiate equipment and software procurement.
- Ability to plan, organize and manage the programs and activities of a GIS personnel team in GIS design, operations and implementation.
- Ability to make decisions based on factual data and to evaluate progress or success of computerized projects and systems.
- Ability to translate technical concepts and terminology in terms understandable to elected officials and agency heads.
- Ability to establish and maintain liaisons with other agencies, public officials and employees.
- Ability to communicate effectively through oral and written communication skills, including technical writing skills.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree from a regionally accredited four-year college or university. Preference may be given to those with a major in geography, cartography, environmental sciences, engineering, or computer sciences.

Experience: Eight years of full-time or equivalent part-time paid experience in Geographic Information Technology, including 2 years experience in a system/program supervisory capacity.

Education & Experience Substitution: Master's degree from an accredited college or university may be substituted for 2 years on the required experience.

Doctorate degree from an accredited college or university may be substituted for three years of the required experience.

Certificates, Licenses, Registrations: None

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