

Title: Advanced GIS-Data Management Specialist	Effective Date: October 7, 2021	Grade: XIV	Job Category: Professional
Prior Title: Advanced GIS – Data Management Specialist	Prior Effective Date: June 22, 2019	Grade: XIV	Page: 1 of 2

CHARACTERISTICS OF WORK

Under general supervision, this position performs advanced cartographic, Geospatial Information Systems (GIS), Global Navigation Satellite System (GNSS), analytics, and enterprise database functions utilizing both spatial and non-spatial data within the Environmental Division.

EXAMPLES OF WORK

The following examples are intended only as illustrations of various types of work performed. No attempt is made to be exhaustive. Related, similar, or other logical duties are performed as assigned. The Department may require employees to perform functions beyond those contained in job descriptions. The Department may modify job descriptions based on Department needs. The Arkansas Department of Transportation is an "at will" employer.

ESSENTIAL JOB FUNCTIONS:

- Produce routine and specialized cartography products and various types of visual information (online applications, figures, displays, dashboards, maps, etc.).
- Create, update, and maintain geospatial and tabular databases, workspaces, business applications, and web applications.
- Analyze, interpret, and publish data for enterprise and project-specific functions.
- Contribute to the creation and maintenance of geospatial methodologies and protocols for studies and ongoing products within the Division.
- Research, assess, and contribute to best practices and alternate methods within the geospatial and data management communities for use in Division and enterprise-level objectives.
- Follow standard operating procedures and protocols to ensure methods, accuracy and quality control parameters are consistently met.
- Incorporate engineering plans into accurate and usable GIS consumable formats.
- Work collaboratively and actively participate in team oriented tasks and goal setting in the course of work.
- Conduct GNSS field collection and incorporate product using applicable software.

SECONDARY JOB FUNCTIONS:

- Provide support to other geospatial and database application users within the Division and the Department.
- Provide support and troubleshooting of IT and GIS hardware/software for Division staff.
- Assist the Lead and/or Section Head in providing GIS, GNSS, and/or data management related training.
- Coordinate with other Divisions, agencies, and consultants.

MINIMUM REQUIREMENTS

Education and experience:

The educational equivalent to a bachelor’s degree from an accredited college or university in GIS, Geography, or related field with a focus on GIS/data management. Applied experience in GIS mapping, project design, and analyses. Applied experience in GIS methodology creation. Experience with the use of GNSS equipment, including the acquisition of data and post-processing. Advanced experience with Esri client software, server software, and online GIS services including, but not limited to, ArcGIS Pro, ArcMap 10.x, ArcGIS Enterprise, ArcGIS Online, and Model Builder.

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Knowledge, skills and abilities:

Demonstrated ability in the use of GIS software, tools, and functionality; knowledge of spatial and tabular database creation, maintenance, and relationships. Advanced knowledge of imagery resources and coordinate systems. Thorough knowledge and applied use of Microsoft Office Suite. Ability to interpret and apply Department policies and procedures. Familiarity with the NEPA process. Working knowledge and applied use of general Python scripting, ArcGIS Arcade, HTML, SQL, and SQL Server Management Studio. Ability to multi-task, quickly adapt to new technology, communicate effectively, organizational, and problem-solving skills.

Physical requirements:

Physical ability to withstand fieldwork in various weather conditions, ability to traverse rugged terrain, including but not limited to, steep hills, creeks and streams, swamps, brush and timber covered property, fences, etc.

Working conditions:

Indoor office setting as well as statewide travel including overnight as necessary

Licenses, registrations and certifications:

Valid driver’s license.

("Accredited" means the educational institution or program is accredited by an accrediting organization recognized either by the United States Department of Education or by the Council for Higher Education Accreditation.)