



STATE OF NEVADA
Department of Administration
Division of Human Resource Management

CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
CARTOGRAPHIC/GRAPHICS TECHNICIAN IV	34	C	6.361
CARTOGRAPHIC/GRAPHICS TECHNICIAN III	31	C	6.364
CARTOGRAPHIC/GRAPHICS TECHNICIAN II	28	C	6.366
CARTOGRAPHIC/GRAPHICS TECHNICIAN I	26	C	6.368

SERIES CONCEPT

Cartographic/Graphics Technicians produce maps and renderings which are geographic representations facilitating a spatial understanding of objects, concepts, conditions, processes, or events in the world; provide illustrations for publications, presentations and reports; produce data-driven graphics and other similar products; and create manual covers, forms, charts, graphs, and other graphic materials.

The Cartographic/Graphics Technician series is distinguished from the Photogrammetrist/Cartographer series by the types of maps and other products produced. Cartographers in the Photogrammetrist/Cartographer series perform map compilations based on horizontal and vertical positions which use completed field survey files to develop base maps.

Meet with the project requestor to determine the layout, scale, projection, and end use of the requested materials; research data from government agencies and other sources to obtain base maps and feature data to compile information such as road networks, legal subdivision lines, State and county lines, boundaries, township and range data, drainage, and related data; research historical records and related data to ensure historical data is properly placed on the map/publication; plot data on the map in accordance with agency and United States Geological Survey (USGS) mapping standards and recognized methods for display of cartographic information.

Compile/create and edit publications, maps, graphics, forms, digital images, web content, and other information using desktop publishing, geographic information systems (GIS), illustration software, graphics techniques, and design principles; prepare data for final output including writing specifications for printing and reproduction, and coordinating distribution of project materials.

Design and create multimedia displays using related software and equipment for presentations, videos, public information meetings, educational outreach, and court and legislative hearings.

Design and produce displays, illustrations and other materials needed to clarify and amplify technical information for publications, web, displays, educational outreach and reports by computer-aided design, desktop publishing, GIS, and photography; scan photographs and slides and perform digital enhancement and repair of images for use in printed and digital products.

Design and produce presentations using various illustrating and presentation design software and related equipment.

Print, mount and frame laminated static images on rigid substrate for meetings, displays and educational outreach.

Research and develop new routines and processes to translate computer files across different platforms; maintain files of projects, publications, and other related digital information; maintain computer and peripheral hardware and software as required.

Perform related duties as assigned.

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CLASS CONCEPTS

Cartographic/Graphics Technician IV: Under general direction, incumbents perform the full range of duties in the series concept and serve as a first-line supervisor for lower level technicians including providing work direction and evaluating performance, coordinating projects with other divisions and the requesting party, and tracking project workload and completion dates.

Prepare, justify, implement and monitor the division/section budget and submit recommendations concerning personnel, equipment and supplies needed to ensure services are provided efficiently and effectively; prepare project/product cost estimates and billing statements.

Cartographic/Graphics Technician III: Under direction, incumbents perform the full range of the duties in the series concept at the journey level.

Cartographic/Graphics Technician II: Under general supervision, incumbents continue to receive training and gain experience in performing the duties in the series concept. Incumbents may progress to the journey level in the series upon meeting the minimum qualifications, satisfactory performance, and with the recommendation of the appointing authority.

Cartographic/Graphics Technician I: Under close supervision, incumbents receive training in the performance of all or part of the duties in the series concept. This is the trainee level in the series and progression to the next level in the series may occur upon meeting the minimum qualifications, satisfactory performance, and with the recommendation of the appointing authority.

MINIMUM QUALIFICATIONS

CARTOGRAPHIC/GRAPHICS TECHNICIAN IV

EDUCATION AND EXPERIENCE: Associate's degree from an accredited college or university in computer graphics, multimedia, geography, geology, or closely related field and four years of cartography and graphic arts experience which included writing specifications for printing and reproduction **OR** graduation from high school or equivalent education and five years of experience as described above; **OR** one year of experience as a Cartographic/Graphics Technician III in Nevada State service; **OR** an equivalent combination of education and experience as described above.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
Detailed knowledge of: principles of graphic design and cartographic drafting/mapping, including the use of drafting/mapping equipment and symbols, nomenclature, and sources of information; desktop publishing systems and computer programs related to the field of graphics, illustration, mapping, and drafting. **Ability to:** write specifications for offset printing, imaging and reproduction projects; coordinate projects and major assignments; negotiate and exchange ideas, information, and opinions with others to formulate policies and/or arrive jointly at decisions, conclusions, or solutions as part of a team; *and all knowledge, skills and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
Working knowledge of: offset printing, imaging, and reproduction methods; State law and agency policies and procedures applicable to personnel management, budget, and the division/section. **Ability to:** organize material, information and resources in a systematic way to optimize efficiency and minimize duplication of effort; train, supervise and evaluate the performance of assigned staff; manage space, equipment and material

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MINIMUM QUALIFICATIONS (cont'd)

CARTOGRAPHIC/GRAPHICS TECHNICIAN IV (cont'd)

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):(cont'd) resources and prepare justifications for acquisitions; refer information to different levels of management as appropriate; analyze production costs to meet budget guidelines; develop and justify division/section budget; establish and maintain cooperative working relationships with agency and division management, vendors, suppliers and others. **Skill in:** making oral group presentations to provide information and training.

CARTOGRAPHIC/GRAPHICS TECHNICIAN III

EDUCATION AND EXPERIENCE: Associate's degree from an accredited college or university in computer graphics, multimedia, geography, geology, or closely related field and three years of cartography experience which included experience in at least one of the following areas: desktop publishing, graphic design, mapping, and/or drafting; **OR** graduation from high school or equivalent education and four years of experience as described above; **OR** one year of experience as a Cartographic/Graphics Technician II in Nevada State service; **OR** an equivalent combination of education and experience as described above.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: USGS mapping standards; geodesic principles and how the curvature of the earth affects a flat map; typography and copy fitting units of measure in order to design projects; methods, materials and techniques used in artistic design and graphics; desktop publishing software and techniques. **Ability to:** work independently to create colorful, pleasing and informative displays and products using computer equipment and related software; type sufficiently to prepare forms and reports with accuracy; transcribe information into a form which meets the needs of the agency; produce data-driven graphics and other similar products; create manual covers, charts, graphs and other graphic materials; conduct research and obtain information needed for projects; *and all knowledge, skills and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: various printing processes and the best format and medium for reproduction; complete mapping process including various materials to produce full colored maps. **General knowledge of:** sources of information within the organization for needed information. **Ability to:** meet with project requestors regarding the type, scope and timelines for projects and products; determine what information and approach is pertinent to specific requests for graphic and/or cartographic materials; determine areas to be photographed for projects and the appropriate scale; interpret maps and aerial photographs with sufficient accuracy to correctly identify features; troubleshoot problems within the computer system.

CARTOGRAPHIC/GRAPHICS TECHNICIAN II

EDUCATION AND EXPERIENCE: Associate's degree from an accredited college or university in computer graphics, multimedia, geography, geology, or closely related field and two years of cartography experience which included experience in at least one of the following areas: desktop publishing, graphic design, mapping, and/or drafting; **OR** graduation from high school or equivalent education and three years of experience as described above; **OR** one year of experience as a Cartographic/Graphics Technician I in Nevada State service; **OR** an equivalent combination of education and experience as described above.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: principles of graphic arts and cartographic drafting/mapping, including the use of drafting/mapping equipment, symbols, nomenclature, and sources of information; desktop publishing systems and computer programs related to the field of graphics, illustration, mapping, and drafting; metric system and United States customary units of measurement. **General knowledge of:** ability to convert map measurements and plot grids in metric and USGS mapping standards; geodesic principles and how the curvature of the earth affects a flat map. **Ability to:** produce accurate materials suitable for publication; perform tasks and follow

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MINIMUM QUALIFICATIONS (cont'd)

CARTOGRAPHIC/GRAPHICS TECHNICIAN II (cont'd)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application): (cont'd)
through on assignments; perform effectively under conditions of fluctuating workloads to meet established time frames; *and all knowledge, skills and abilities required at the lower level.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
(These are identical to the Entry Level Knowledge, Skills and Abilities required for Cartographic/Graphics Technician III.)

CARTOGRAPHIC/GRAPHICS TECHNICIAN I

EDUCATION AND EXPERIENCE: Associate's degree from an accredited college or university in computer graphics, multimedia, geography, geology, or closely related field and one year of experience performing desktop publishing, graphic design, mapping, or drafting tasks; **OR** graduation from high school or equivalent education and two years of experience as described above; **OR** an equivalent combination of education and experience as described above.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
Working knowledge of: basic math skills; metric system and United States customary units of measurement.
General knowledge of: graphic arts, photography, mapping, desktop publishing, and computer-aided design.
Ability to: perform repetitive work according to established procedures; add, subtract, multiply and divide whole numbers, fractions, and decimals; compute ratios and percentages. **Skill in:** communicating effectively both orally and in writing; establishing and maintaining cooperative working relationships with co-workers and the public.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
(These are identical to the Entry Level Knowledge, Skills, and Abilities required for Cartographic/Graphics Technician II.)

This class specification is used for classification, recruitment, and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

	<u>6.361</u>	<u>6.364</u>	<u>6.366</u>	<u>6.368</u>
ESTABLISHED:	7/1/93P	7/1/93P	7/1/93P	7/1/93P
	8/31/92PC	8/31/92PC	8/31/92PC	8/31/92PC
REVISED:	10/15/97R	10/15/97R	10/15/97R	10/15/97R
	9/10/99PC	9/10/99PC	9/10/99PC	9/10/99PC
REVISED:	12/19/03PC	12/19/03PC	12/19/03PC	12/19/03PC
REVISED:	3/19/21PC	3/19/21PC	3/19/21PC	3/19/21PC