

## STATE OF SOUTH DAKOTA CLASS SPECIFICATION

**Class Title: Systems Software Specialist**

**Class Code: 10735**

**Pay Grade: GL**

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### **A. Purpose:**

Provides technical support in planning, designing, installing, maintaining, programming, testing, and implementing systems, integration, and/or database software, hardware, and products to ensure efficient integration and functioning of systems.

### **B. Distinguishing Feature:**

The Systems Software Specialist serves as an internal consultant, providing expert technical leadership and guidance to other technical staff.

The Senior Systems Programmer has primary accountability for optimizing resource utilization; resolving complex operational problems; and providing the installation, maintenance, and operating efficiency of an assigned platform.

### **C. Functions:**

*(These are examples only; any one position may not include all of the listed examples nor do the listed examples include all functions which may be found in positions of this class.)*

1. Serves as project leader to ensure software, hardware, and system upgrades or installations are planned and conducted in an efficient and expedient manner.
  - a. Researches and evaluates work requirements.
  - b. Documents project structure and assigns task to appropriate personnel.
  - c. Monitors project status and evaluates final product.
2. Plans, installs, tests, and implements operating, telecommunications, and vendor leased/purchased software packages to meet agency requirements.
  - a. Customizes software to meet system and agency needs and integrate with existing software.
  - b. Communicates with outside vendors and personnel to tailor the product to meet agency requirements.
  - c. Provides technical training on the capabilities of upgraded systems software.
3. Tunes the computer system to ensure efficient utilization of computer resources.
  - a. Monitors system to determine utilization of system resources.
  - b. Analyzes information, evaluates current procedures, and explores new methods to increase performance and functionality of the system.
  - c. Tunes areas of inefficient use of system resources by adjusting variables and options.
4. Develops and maintains computer performance tracking reports to inform management on current capacity of the system.
5. Evaluates requests for systems hardware and software acquisitions to provide recommendations to management.
  - a. Reviews proposed requirements and current system capabilities.
  - b. Determines capabilities of proposed systems and service level requirements.
  - c. Calculates cost benefits.

6. Provides problem determination and resolution of the highest level to avoid or minimize service interruption.
  - a. Identifies and isolates systems problems.
  - b. Circumvents problem.
  - c. Develops long-term resolutions.
7. Performs other work as assigned.

**D. Reporting Relationships:**

This position does not typically supervise, but does provide training, work direction, and project leadership to system staff.

**E. Challenges:**

Challenged to maintain compatibility of integrated software, hardware, and databases. This is difficult because of continual changes in software and hardware and modifying the products to conform to the environment.

Typical problems resolved by the incumbent include system abends, errors in system program logic that result in product failure, and documentation and procedure inconsistencies.

**F. Decision-making Authority:**

Decisions made include project selection, structure, and assignment of tasks; installation schedules and methods of installation, tuning changes, recommendations on products and upgrade direction, problem determination and resolution, and design of in-house written software.

Decisions referred include final approval of new products or enhancements, expenditure of funds, and project priority.

**G. Contact with Others:**

Weekly contact with vendor support centers on problem identification and resolution; daily contact with clients to provide technical assistance and problem resolution, or to research system hardware/software/database needs; and occasional contact with vendor representatives to communicate hardware/software/database needs.

**H. Working Conditions:**

Typical office environment, subject to on-call or after hours work to resolve system problems.

**I. Knowledge, Skills, and Abilities:**

Knowledge of:

- operating systems, systems software, companion software and utilities supported by the agency and hardware for those systems;
- technical issues in telecommunications and system administration;
- application development;
- systems programming.

Ability to:

- analyze, identify, and solve technical problems;
- lead projects;
- design, develop, and control the overall operational aspect of an operating system;
- analyze and maximize technical and operational performance characteristics based upon specified guidelines;
- prioritize and direct the work of others.