

**OFFICE OF THE SECRETARY OF STATE  
DEPARTMENT OF PERSONNEL**

**INFORMATION SYSTEMS TECHNICIAN**

**Position Code: K4055**

**DISTINGUISHING FEATURES OF THE CLASS:**

Under direction, performs independent systems analysis of projects with easily understood subject areas and relatively few variables and processes. Works from specifications to assist in developing and modifying operating software programming applications or formulating/defining scope and objectives to develop or modify systems. Prepares detailed specifications from which programs will be written. Assists senior staff with and/or designs, codes, tests, debugs, documents and maintains programs for projects with easily understood subject areas. Applications generally include, but are not limited to utility programs, job control language (JCL), macros, subroutines and other modules. Competent to work on several phases of systems programming applications analysis, but requires instruction and guidance in more difficult/complex phases.

**ILLUSTRATIVE EXAMPLES OF WORK:**

Typical duties include, but are not limited to, such functions as:

1. Performs independent systems analysis of projects with easily understood subject areas and relatively few variables and processes; develops, analyzes, writes, debugs, tests and documents new programs; updates existing programs; codes all job control language for the subsequent processing of the program; under guidance and direction of senior staff, performs difficult program testing and debugging, including analyzing test results and applying cross-checks;
2. Assists in detailed studies/analysis of data processing functions, methods and procedures, including computer systems documentation, organizational structures, system environment, methods of operations, problem solving, system enhancement analysis, procedural analysis, forms design; makes recommendations concerning the feasibility of revising existing operations, adapting new applications to data processing solutions or identifying hardware and software improvements;
3. Receives limited assignments in the analysis of operations to determine needed systems revision or conversion to electronic data processing; prepares specification for converting procedures to coded instructions; prepares time and cost estimates and determines unit cost data; assists in providing software development program consultative services to system users and may provide guidance to systems analysis staff; assists in or prepares input/output flowcharts; develops forms, designs machine instructions, block diagrams and programs;
4. Participates in the identification and resolution of hardware and software problems; studies procedural difficulties and operating problems and advises on solution; consults with departmental staff; may periodically be required to act independently in response to unplanned hardware or software failures;
5. Performs systems tuning and measurement functions; may prepare, define, modify, or design hardware and/or software components of data processing systems or develop general and detailed systems design; may install, test, document and implement vendor software packages; may develop and implement custom software;
6. May assist in developing, designing and implementing physical layout plans, hardware/software configuration/installations; may assist in the development, monitoring and maintenance of standards for systems development, hardware selection and network growth; may assist in the preparation or modification of detailed documentation for assigned hardware and software systems including designing forms and preparing system documentation and required manuals, systems narratives and flowcharts, computer block diagrams, network diagrams, etc.;

## **INFORMATION SYSTEMS TECHNICIAN (Continued)**

7. Writes programs from clearly defined specifications indicating all inputs, outputs and edits required; enters program; develops or updates assigned segments of a large and complex data processing system; assists in providing ongoing support to end user; may perform system administration duties according to established standards;
8. May assist in the development of training programs; may prepare training materials; may conduct training programs for all levels of users supported by the department;
9. Performs other duties as required or assigned which are reasonably within the scope of the duties enumerated above.

### **DESIRABLE REQUIREMENTS:**

#### **Education and Experience:**

Requires knowledge, skill and mental development equivalent to completion of two years of college with coursework in the computer science field OR two years of technical systems and programming experience OR any equivalent combination of education and experience.

#### **Knowledge, Skills and Abilities:**

Requires working knowledge of the capabilities that may be provided by different components of a computer configuration.

Requires working knowledge of systems design and implementation, including the manner in which programs are written, compiled and tested, the methods of operating computers, and the manner in which data is transcribed into a form suitable for reading by computers.

Requires working knowledge of the devices for capturing data for computers and the means available for receiving and transmitting data from remote locations to a computer.

Requires working knowledge of the principles and techniques of computer system documentation.

Requires the ability to follow oral and/or written instructions and to carry out routine operations, once established, without further instructions.

Requires the ability to analyze data logically and to present results with clarity and comprehension, orally, in written or graphic form.

Requires willingness to travel and possession of a valid Illinois driver's license as required by individual positions within the class.

Approved by the Secretary of State Merit Commission - March 12, 1996.

Effective - April 1, 1996.

### **EXAMINATION INFORMATION**

Test and Weights: Education and Experience, 100%

Length of Eligibility: 1 year