

**Systems Programmer (1455)
Task List 2019**

1. Evaluates, generates, installs, implements, configures, modifies, and ensures proper working function of systems provided by vendors, including, but not limited to: computer and network systems, database, security, virtualized and cloud infrastructure, storage, and information systems in order to create and maintain an optimal operating environment.
2. Applies project management principles and techniques to assignments, including, but not limited to: determining the scope and extent of projects; determining resources required to complete projects; coordinating resources, including vendors, City staff, City Departments, government agencies; acting as lead throughout project implementation; and providing maintenance and support when needed in order to ensure a successful project implementation.
3. Develops and ensures proper working function of technical, functional, and operational documentation used by users, systems, operations and programming personnel, such as, operating system, network diagrams, dataflow, and network operating procedures in order to keep up-to-date documentation of the system and infrastructure.
4. Performs complex systems work such as performance tuning, capacity planning, and application integration with modern or legacy systems in order to ensure proper operation.
5. Integrates various hardware and software platforms or components by using various technologies and/or approaches such as service oriented architecture (e.g., web services), database connectivity, databus, application programming interface (API) and open service protocols in order to create and/or enhance interoperability.
6. Develops and implements disaster recovery and business continuity plans such as disaster recovery sites, backup strategies, and high availability to ensure continuous availability of critical systems.
7. Evaluates, installs, configures, monitors, and ensures proper working functioning of systems that provide security to the network, applications, and systems in order to prevent and mitigate cyberattacks and prevent unauthorized access.
8. Designs, implements, and manages back-up recovery systems, policies, and procedures including back-up and restore validation on premise and cloud-based systems in order to prevent data loss and to ensure business continuity.
9. Reviews, analyzes, and correlates security related data and reports to respond to security incidents including incident handling in order to minimize risk from cyber threats.

10. Researches, designs, and implements system security best practices and consults, develops, and recommends security policies and procedures including but not limited to system configuration, system hardening, patch and version management, identity management, advanced persistent threats, intrusion detection and prevention in order to prevent and mitigate cyberattacks and prevent unauthorized access.
11. Designs, installs, and ensures proper working function of data center and server facilities including rack infrastructure, power management, environmental management, cable management, and physical security in order to properly support and manage data centers.
12. Reviews and analyzes traces, system dumps, and logs to determine various problems related to hardware, software, security, performance, and network in order to troubleshoot and to fix systems problems.
13. Tests and evaluates hardware and software such as proof of concept and creating a test environment in order to identify coherent solutions with existing infrastructure and perform comparative configuration analysis, tuning, capacity planning and long-range hardware and software planning.
14. Writes and submits narrative reports to management using technical data on various topics such as new systems, optimizing existing systems, and security in order to present recommendations.
15. Provides consultation, training and guidance to other technical employees in the use of systems, database, storage, network, and security software and hardware in order to expand the knowledge within the section.
16. Supervises or serves as a technical lead to technical staff engaged in systems design, implementation, configuration, and management in order to guide and educate the activities of less technical staff.
17. Meets and consults with vendors, consultants and contractors regarding new features, industry trends and standards in order to keep current with new technology, solutions, and implementation.
18. Makes oral presentations and conducts technical training to all City levels (e.g., City officials, managers, supervisors, users, staff) for various purposes including the introduction of new systems, presenting technical alternatives, providing cybersecurity awareness, identifying shortcomings of existing systems, and obtaining budget approval in order to train, educate and bring awareness to various topics.