INFORMATION SYSTEMS ANALYST I/II/III

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

DEFINITION

To perform professional level duties in the development, installation, coding, integration, documentation, testing, and maintenance of business systems and database applications; to evaluate user requirements and develop technical solutions; to perform programming and analysis work in the development, implementation, maintenance of Geographic Information Systems (GIS); to troubleshoot and resolve problems with the design and delivery of internet, intranet, and related services; to participate in the monitoring of the functionality, security and integrity of internet, intranet, and related services; and to perform a variety of tasks relative to assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

Information Systems Analyst I

This is the entry level class into the Information Systems Analyst series. It is distinguished by incumbents possessing little prior experience working as a systems analyst. Advancement to the next higher-level class is at the discretion of management, and is dependent on demonstrating the experience, knowledge, and ability requirements of the Information Systems Analyst II. Employment is conditional upon advancement within a reasonable period.

Information Systems Analyst II

Information Systems Analyst II is the experienced-level class in the series. It is distinguished by incumbents possessing some experience in performing programming work; however, incumbents do not possess the full breadth and depth of knowledge and ability of the Information Systems Analyst III class. Advancement to the next higher-level class is at the discretion of management, and is dependent on demonstrating the experience, knowledge, and ability requirements of the Information Systems Analyst III. Employment is conditional upon advancement within a reasonable period.
Information Systems Analyst III

This is the journey level class in the Information Systems Analyst series. It is distinguished by incumbents possessing the depth and breadth of knowledge and abilities required to perform the full range of programming responsibilities. Employees perform the most difficult and responsible types of duties assigned to classes within this series, including serving as a project manager in the design, development, and maintenance of the most complex District applications and/or providing lead supervision to assigned staff. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the next higher class of Senior Information Systems Analyst in that the later serves as the District’s designated technical expert and resource in the development and implementation of large, enterprise-wide information technology (IT) applications.

SUPERVISION RECEIVED AND EXERCISED

Information Systems Analyst I

Receives immediate supervision. Employees within this class work in the presence of their supervisor or in a situation of close control and easy reference. Work assignments are given with explicit instructions or are so routine that few, if any, deviations from established practices are made without checking with the supervisor.

Information Systems Analyst II

Receives general supervision. The assigned duties for employees within this class require the exercise of judgment or choice among possible actions, sometimes without clear precedents and with concern for the consequences of the action. Employees may or may not work in proximity to their supervisor.

Information Systems Analyst III

Receives direction. Employees within this class receive general instructions regarding the scope of and approach to projects or assignments, but procedures and techniques are left to the discretion of the employees.

TYPICAL DUTIES

The duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this position. Management reserves the right to add, modify, change, or rescind the work assignments of different positions.

1. Perform a variety of professional level duties in the development, installation, coding, integration, documentation, testing, and maintenance of business systems, and database applications.
2. Provide consultation, technical support, and advice on project direction and feasibility; provide analysis and recommendations for modifying procedures, developing technical strategies, and workable solutions that meet the business need.

3. Design and produce cartographic products based on requests by District staff.

4. Monitor, administer, and troubleshoot the operation of employee and public Content Management Systems (CMS) ensuring the websites are working properly and available to District employees and the public; maintain web system performance by performing system monitoring and analysis on web servers; create system accounts and provide access to users; install CMS modules designed to perform functions required by user; troubleshoot website problems and inconsistencies.

5. Provide user training for various software, hardware, and activities, such as training content users for the District’s website.

6. Manage internet and intranet servers; conduct server maintenance functions; build and implement web-enabled database applications; develop and maintain web-related systems documentation.

7. Design, write, and execute programs in a variety of programming environments; design input and output related forms, including screens, data storage records, forms, and reports based on existing or proposed manual and computer requirements.

8. Design, develop, code, debug, test, install, and maintain software applications; troubleshoot and rectify application software problems; evaluate new software/hardware and recommend changes as needed; review new application software for compliance with applicable quality assurance standards before implementation; prepare and update user manuals and system documentation.

9. Develop and customize GIS and related web applications and systems using a variety of programming languages, including developing infrastructure applications that enable GIS staff to perform work easier and more efficiently.

10. Develop written technical documentation, internal operating procedures, and user manuals and instructions; develop instructional materials and conduct training programs on new or enhanced applications; update technical and training manuals as required.

11. Participate in the evaluation and testing of system software; install or upgrade software applications; troubleshoot software related problems; coordinate and document testing for new or revised software applications; assist in deployment of new applications in assigned areas.

12. Plan, install, and maintain large, complex application software; provide technical assistance to system users in accordance with applicable information systems policies, procedures, methods, and techniques.

13. Troubleshoot and diagnose software, hardware, and/or network problems.

For positions assigned to the Geographic Information Systems function:

14. Design and produce cartographic products based on requests from District personnel.
15. Design applications and utilities to integrate digital and analog data, to covert data, and to integrate new and existing data systems; use GIS software as a tool to interpret spatial and tabular data for analytical purposes; validate conclusions; make recommendations; develop spatial and tabular data and designs, maintain and administer databases for storing the data.

16. In cooperation with database administration and other IT infrastructure specialists, administer data integration, linkage and structure related to data importing and exporting, versioning, maintenance of library functions, and geodatabase conversions.

17. Administer assigned system databases, ensuring proper storage, database design, and data structure; monitor system performance; perform first echelon maintenance to correct system problems.

18. Interact with a variety of other agencies and contractors to obtain and share data, to ensure the data and software meets standards and are compatible, and to exchange knowledge and technology.

All positions:

19. Attend and participate in professional group meetings; stay abreast of new trends and innovations in the field of information systems.

20. Employees have a responsibility for safety; for following safety regulations and safety policies and procedures applicable to their work.

21. Pursuant to California Government Code Section 3100, all public employees are required to serve as disaster service workers subject to such disaster service activities as may be assigned to them by their supervisors or by law.

22. Perform related duties and responsibilities as required.

QUALIFICATIONS

The level and scope of the knowledge, skills, and abilities listed in this section are related to the job duties as defined under Distinguishing Characteristics.

Information Systems Analyst I

Knowledge of:

Theories and applications of computer science.
Personal computer hardware and software components.
Methods and techniques used in the installation, troubleshooting, and maintenance of software applications.
Operational characteristics of various computer programs, software packages, and programming languages.
Principles and procedures for quality assurance and computer/system security.
Current internet technologies.
Internet design principles and methods.
Internet security principles, protocols, methods, and procedures.

Ability to:

Provide technical support for the implementation, maintenance, and documentation of various software applications, including user procedures.
Respond to and identify user needs and determine resolutions.
Apply methods and techniques of application design, development, and implementation.
Detect, isolate, and resolve application problems.
Analyze and assess the technological needs of District departments.
Provide advice, assist, and train others.
Read and interpret a variety of instructional manuals and written instructions.
Recommend appropriate technology to meet client needs.
Communicate clearly and concisely, both orally and in writing.
Establish and maintain effective working relationships with those contacted in the course of work.
Use common desktop applications and software as well as specialized software related to the work.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Equivalent to a Bachelor’s degree from an accredited college or university with major course work in computer science, information systems, or a related field.

Experience

One (1) year of business systems, GIS, web master, and/or software development and analysis experience.

Substitution

Directly related experience may be substituted for the college requirement on the basis of one and one-half years of experience for one year of education.

License or Certificate

Possession of, or ability to obtain, an appropriate, valid California driver's license.

Information Systems Analyst II

In addition to the knowledge and skills for Information Systems Analyst I:

Knowledge of:

Methods and techniques of application development, design, and programming.
Principles and procedures of quality assurance and security related to computer, and information systems.
A variety of programming techniques related to business systems, GIS and integrated database management applications.
Operational characteristics and capabilities of data base management systems.
Principles and practices of computer programming.
Principles of database management.
Standard graphics mark-up languages, programming languages and tools related to Internet systems.
Operational characteristics of a variety of computer platforms and operating systems.
Methods and techniques used in the installation, troubleshooting and maintenance of information system applications.

Ability to:

Recommend, design, implement, and install computer software applications.
Install, troubleshoot, and upgrade District information systems applications.
Perform complex spatial analysis using multiple attributes and virtual scenarios.
Design, install, test, implement and maintain District internet and intranet web sites and related applications.
Upgrade and configure web servers to optimize applications.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Equivalent to a Bachelor's degree from an accredited college or university with major course work in computer science, information systems, or a related field.

Experience

Three (3) years of business systems, GIS, webmaster, and/or software development and analysis experience.

Substitution

Directly related experience may be substituted for the college requirement on the basis of one and one-half years of experience for one year of education.

License or Certificate

Possession of, or ability to obtain, a valid California driver's license.

Information Systems Analyst III

In addition to the knowledge and skills for Information Systems Analyst II:

Knowledge of:

Advanced computer programming, data analysis, and software development.
GIS technologies with advanced desktop/internet programming.
Principles, practices, and responsibilities involved in leading the work of assigned staff.

Ability to:

Perform journey level business systems and GIS applications analysis and programming duties under direction.
Interpret and analyze complex user information systems requirements and develop solutions.
Perform the most complex spatial analysis using multiple attributes and virtual scenarios.
Train, organize, assign, and review the work of staff.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Equivalent to a Bachelor’s degree from an accredited college or university with major course work in computer science, information systems, or a related field.

Experience

Five (5) years of business systems, GIS, web technologies, and/or software development and analysis experience.

Substitution

Directly related experience may be substituted for the college requirement on the basis of one and one-half years of experience for one year of education.

License or Certificate

Possession of, or ability to obtain, a valid California driver’s license.

WORKING CONDITIONS

Environmental Conditions

Office environment; exposure to computer screens and copiers; moderate noise levels; and controlled temperature conditions.

Physical Conditions

Essential functions may require maintaining physical condition necessary for reaching, walking, standing or sitting for prolonged periods of time; extensive use of computer keyboard and mouse; light to moderate lifting; reaching above head; visual acuity for reading documents, correspondence and computer screens; operating a variety of manual and automated office equipment.
## CLASS LEGEND

<table>
<thead>
<tr>
<th>Established Date</th>
<th>5/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Groups</td>
<td>EA</td>
</tr>
<tr>
<td>Revisions Dates</td>
<td>5/2019</td>
</tr>
<tr>
<td>FLSA Status</td>
<td>Non-exempt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class Code</th>
<th>Current</th>
<th>Previous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series Code</td>
<td>1XJ</td>
<td></td>
</tr>
<tr>
<td>Family Code</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous Titles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyst</td>
<td>FD</td>
<td></td>
</tr>
</tbody>
</table>