



**Orange County Department of Education
Human Resources Department
Classified Management Class Specification**

Software Engineer

**Class Code: 1373
Work Days: 225**

GENERAL PURPOSE

Design and create engineering specifications for software programs and applications; implement specific development methodology; document software specifications; code, test and debug programs according to specifications; modify, expand, and update applications; develop software prototypes; collaborate with technical teams; assess and test hardware and software interaction; and collaborate with other stakeholders to ensure architecture is aligned with business requirements; and provide responsible support to higher level management staff.

SUPERVISION RECEIVED AND EXERCISED

1. Receives general supervision from higher level management staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES

This position description is intended to describe the general nature and level of work performed by an employee assigned to this position. This description is not an exhaustive list of all duties, responsibilities, knowledge, skills, abilities, and working conditions associated with this position. All requirements are subject to possible modification to reasonably accommodate individuals with a disability.

1. Recommend and assist in the implementation of goals, objectives, and strategic plan; establish schedules and methods for providing specialized services; implement policies and procedures.
 2. Analyze procedures, data and processes to develop logical solutions to complex application programming problems.
 3. Perform complex application development duties including requirements gathering, analysis, design, development, testing and debugging; developing software prototypes, releasing applications and updates, communicating and collaborating with stakeholders and related staff.
 4. Test and update applications and programs to support new operating systems and software.
 5. Conduct meetings with customers and transform requirements into effective applications.
 6. Follow established OCDE application design standards, policies, and procedures.
 7. Follow established quality assurance and security standards for applications.
 8. Follow established database standards and procedures.
 9. Independently perform complex application development/programming analysis duties.
 10. Provide detailed design and specification documentation for all systems and databases.
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ESSENTIAL FUNCTION STATEMENTS (cont.):

11. Provide oversight, guidance and support to Software Developers and related technical staff.
12. Provide project oversight and support.
13. Verify stability, interoperability, portability, security, and scalability of application architecture.
14. Develop software prototypes.
15. Install, research, test, and verify proper functioning of software updates.
16. Research new features, software, and tools. Make recommendations to improve existing processes and tooling.
17. Attend advisories and user group meetings to learn about and contribute to OCDE business applications and processes.
18. Keep up-to-date on emerging application design and database architectures, technologies, and methodologies, and attend training classes as necessary.
19. Must demonstrate attendance sufficient to complete the duties of the position as required. This includes nights and weekends for implementations, updates and processes.
20. Perform related duties similar to the above in scope and function as required.

QUALIFICATIONS (KNOWLEDGE, SKILL, ABILITY REQUIREMENTS)

Knowledge of:

1. Principles and practices of application architecture, security and analysis
2. Methods and techniques used to design, develop, test, and deploy applications
3. Methods and techniques of evaluating requirements and developing information systems solutions
4. Principles and practices of programming languages, development operations, tooling and related technology
5. Project management and reporting
6. Methods and techniques of developing application technical manuals and documentation.
7. Application development best practices.
8. C#
9. ASP.NET (WebForms and MVC)
10. Microsoft .NET Framework
11. Visual Studio .NET Development Environments
12. Structured Query Language (SQL)
13. Microsoft SQL Server 2008 and above
14. SQL Server Integration Services (SSIS)

Knowledge of (cont.):

15. Database design and development
16. JavaScript (and JavaScript frameworks)
17. Hyper Text Markup Language (HTML)
18. Cascading Style Sheets (CSS)
19. Reporting tools such as Crystal Reports or SQL Server Reporting Services (SSRS)
20. OCDE business applications and processes

Ability and Skill to:

1. Provide project oversight and support.
2. Manage multiple competing priorities efficiently and effectively.
3. Interpret the organizational and division strategic plan and create relevant goals and plans for assigned areas.
4. Establish and maintain effective working relationships with various constituencies.
5. Understand, interpret, and explain laws, codes, contracts, regulations, policies, and procedures.
6. Prepare clear and concise correspondence, reports, and other written materials.
7. Analyze problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of goals.
8. Communicate clearly and concisely, both orally and in writing, in English; present information effectively in front of both large and small groups.

Education, Training and Experience:

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

A typical way of obtaining the knowledge, skills, and abilities outlined above is Bachelor's degree from an accredited college or university with major course work in a computer related field and three (3) years of recent extensive experience in the areas of design, development, testing, debugging and deployment of applications using Microsoft .NET and SQL Server. This experience should have been performed at a senior level and within the last two years.

(Recent experience is defined as within the last two (2) years)

PHYSICAL AND MENTAL DEMANDS

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands

While performing the duties of this job, employees are regularly required to bend, stoop, push, pull, grasp, squat, twist, kneel, walk, sit, and reach to access materials or equipment and complete other tasks as assigned; lift and carry up to 25 pounds; and lift from ground, waist, chest, shoulder, and above shoulder level. The position may include occasional need to traverse uneven surfaces.

Employees in this classification are to be able to travel countywide to a variety of sites within a reasonable time frame; read written and electronic materials; communicate clearly in person, on the phone, and via email; and operate all required equipment.

Mental Demands

While performing the duties of this class, employees are regularly required to use written and oral communication skills; read and interpret information; analyze and solve problems; use mathematical reasoning; make observations; learn and apply new information or skills; perform highly detailed work; work on multiple, concurrent tasks with frequent interruptions; work under intensive deadlines and meet productivity requirements; and interact successfully with various groups of people encountered in the course of work.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Employee typically works in an office environment that is fast paced with high pressure.

2/09, 2/14, 7/17