

# SCHOOL DISTRICT OF ESCAMBIA COUNTY

## JOB DESCRIPTION

### Programmer Analyst I – Web Technologies

#### QUALIFICATIONS:

- (1) Bachelor's Degree from an accredited educational institution in Computer or Systems Science, or equivalent training and experience.
- (2) Minimum of six (6) years of successful Web development experience of which a minimum of two (2) years must include application of scripting and database connectivity languages to provide browser-based access to data.
- (3) Qualifications may vary from the above requirements to such a degree as the Superintendent and Board determine is necessary and appropriate to ensure properly qualified personnel in each specialized assignment.

#### KNOWLEDGE, SKILLS AND ABILITIES:

Maintain a responsive and smoothly operating District Web presence by effectively applying knowledge of:

Internet Networking Fundamentals including, but not limited to: Local Area Networks & Wide Area Networks; Internetworking, Intranets, and Extranets; Packet Switching and Routing; Protocols and Layering, Firewall and port management; TCP/IP, SLIP/PPP, DHCP, and http Internet Protocols; and Domain Name Service

Web Authoring and Publishing languages and tools including, but not limited to: HTML & DHTML; HTML Extensions; XML; HTML Browsers; HTML Authoring Tools; and HTML Design Styles

Scripting and Database Connectivity languages and tools including, but not limited to: Client-side Scripts and Applets such as VBScript, ActiveX, JavaScript, and Java Applets; Server-side Scripting and Server Extensions (Middleware) such as .Net, CGI, ISAPI, NSAPI, Active Server Pages, etc.; CGI Programming languages such as C++, Visual Basic, Perl, Java, PHP, etc.; Backend Database Connectivity; and 3-tier Client/Server Applications

Database products provided by, but not limited to: Microsoft, Sybase, Oracle, Postgre, and MySQL

Multimedia and Graphic Design expertise including, but not limited to: Multimedia Integration tools and Graphics Development tools

Web Site Planning and Design expertise including, but not limited to: Web Site Analysis and Design; Web Site Development Methodologies; Web Site Structuring; and Web Site Navigation

Web Server Management expertise including, but not limited to: Web Server Installation; Server Administration; and Server Security

Complete software life cycle methodologies of analysis, design, coding, testing, implementation and documentation

Web page functionality and public access features

Interpersonal and analytical skills

Independent and proactive approach to assignments, which anticipates the need to deploy new Web-based functionality and technologies

Task organization and prioritization

Effective oral and written communication, through use of clearly organized thoughts using proper sentence construction, punctuation, and grammar

**REPORTS TO:**

Director I Information Technology

**JOB GOAL**

To develop and maintain an appropriate range of District administrative, operational, and instructional Web services through: application of professional skills and knowledge; employee training and consultation; technical support; and orchestration of out sourced services and applications.

**SUPERVISES:**

N/A

**PERFORMANCE RESPONSIBILITIES:**

**Service Delivery**

- \* (1) Administer and assist in the maintenance of the functionality of all District Web servers and content.
- \* (2) Coordinate, plan, and implement the District's Web presence.
- \* (3) Identify issues preventing implementation of an appropriate and fully functional District Web presence and develop strategies and procedures to rectify those issues.
- \* (4) Evaluate and prioritize requests for Web services development and support.
- \* (5) Consult with present and potential District users of Web services to determine their technical, training, and budgetary requirements.
- \* (6) Maintain a record of Web services work, requested by and completed for District schools and offices, through use of the incident tracking capabilities within the District's online Help Desk software.
- \* (7) Test all District Web system components as required.

- \* (8) Write District Web applications as required.
- \* (9) Coordinate the District's outsourced Web services and applications.
- \* (10) Purchase and/or develop, manage, and apply a repository of appropriate applets, tools, utilities, and scripts for District Web page development and maintenance.
- \* (11) Conduct continuous research in emerging Web technologies and identify appropriate application of those technologies in the District's Web presence.
- \* (12) Facilitate the design, implementation, and maintenance of high profile District Web pages, as identified by the District Administration and School Board.
- \* (13) Assist Information Technology, Application Support personnel in coding and debugging Web enabled applications and interfaces.
- \* (14) Devise strategies for gradual migration of school and office Web sites to a self-sufficient posture.
- \* (15) Devise and implement a service delivery and cross-training model that provides for continuous availability of the skills and knowledge necessary to rectify District Web site emergency situations.
- \* (16) Analyze user access trends and optimize District Web services to accommodate those requirements.
- \* (17) Ensure sensitive or classified information is not inadvertently released through improperly configured or designed Web services.
- \* (18) Register and administer security certificates, public key applications, and FTP access on District Web servers.
- \* (19) Regularly review the District Web site for evidence of malicious intrusion attempts and deploy counter-measures to defeat future attempts.
- \* (20) Apply professional Web engineering and administrative knowledge to solving problems in the development, operation, maintenance, and expansion of District Web services.
- \* (21) Maintain summaries of contractual obligations, licensing cycles, and outsourcing relationships in a manner that allows uninterrupted Web services in the event of a protracted Webmaster absence.
- \* (22) Verify that all Web servers are equipped with adequate protection from malicious code and attack by appropriate patches, updates, virus signatures, and scanning engines.
- \* (23) Verify that the Web server and Web distributed information is archived for future needs and reference.
- \* (24) Write technical documents, usage reports, and resources needs estimates to justify an annual budget request for maintenance and continued development of the District's range of Web services.
- \* (25) Track outsourced services and vendor invoices to ensure an optimal return on District Web services expenditures.
- \* (26) Implement a secure directory and database that contains all usernames, passwords, digital encryption information, and contact information necessary for operation and maintenance of the District's Web services in the absence of the Webmaster.
- \* (27) Analyze throughput and bandwidth restriction issues and apply load balancing and file optimization techniques to rectify known problems.

- \*(28) Ensure that District Web services are compatible with a variety of clients and services including multiple web browsers on Windows, Macintosh, and Linux desktops.
- \*(29) Integrate and take advantage of the District's entire Information Technology infrastructure including Novell Netware, OS X Server, QuickTime Streaming Server, SUSE Linux, and IBM Mainframe applications when developing web services.
- \*(30) Develop Web services that fully comply with World Wide Web Consortium (W3C) and European Computer Manufacturer's Association (ECMA) standards for optimal accessibility and interoperability
- \*(31) Integrate with District Novell eDirectory services for authentication and resource allocation via use of LDAP in deployed Web technologies.
- \*(32) Maintain a library of official ECSD graphics in various resolutions and file formats for use on the web and in printed materials.

### **Inter / Intra-Agency Communication and Delivery**

- \*(33) Communicate effectively with staff and vendors.
- \*(34) Respond to District and public inquiries and concerns, regarding the Web site and services, in a timely manner and according to District policy and established protocol.
- \*(35) Act as a technical liaison and advisor for District offices that require vendor or outsourced assistance in implementing complex Web page functionality.
- \*(36) Report unusual Web services problems and suggests possible solutions to the Director of Information Technology.
- \*(37) Exercise considerable independent judgment and proactive measures to accomplish the work necessary to continuously develop and maintain an appropriate range of District administrative, operational, and instructional Web services.
- \*(38) Confer with District Offices, Administration, and School Board to develop and implement improved and/or expanded Web-based processes as required.
- \*(39) Agenda, coordinate, and chair Web Developers meetings among germane District employees to discuss issues and current technical information that impacts District Web services.
- \*(40) Provide training to District school and office Web managers through periodic newsletters and workshop instruction
- \*(41) Maintain a continuously collaborative posture with District personnel responsible for managing Web content in order to decrease down time, streamline work processes, and provide quality student, employee, and public Web services.
- \*(42) Identify outsourcing options for delivery of Web skills training to key personnel in District offices with complex Web sites and services
- \*(43) Build strong working relationships with all IT workgroups, particularly those workgroups responsible for maintaining applications that provide interactive Web interfaces to District office functions and databases.
- \*(44) Collaborate with District Public Information personnel and outsourced Web development vendors to provide technical and creative input for deployment of

public awareness and marketing content on the District Web site and in District printed media.

- \*(45) Assist District employees in the deployment of current and emerging Web-based communications technologies including, but not limited to: video streaming, Wikis and other Web 2.0 services, List serves, Podcasts, MP3 postings, and Instructional Management Systems.
- \*(46) Organize Webmaster assistance protocol in a manner that requires all requests for assistance with Web services be done through an entry in the District Help Desk application.
- \*(47) Train District personal in general Web deployment skills including but not limited to: the construction of Web pages using District and/or industry standard applications; file transfer, file uploading, and directory navigation procedures; multimedia file acquisition techniques; and appropriate use of multimedia in Web services.
- \*(48) Train District content owners to use conversion tools to convert existing documents to HTML, PDF, and other commonly used Web formats.
- \*(49) Develop employee training manuals and deliver employee workshops that address deployment and maintenance of District schools' and offices' Web sites and services.
- \*(50) Confer with all District department heads and their Web managers to gather information on the content and functionality required on their Web pages.

#### **Employee Qualities / Responsibilities**

- \*(51) Demonstrate initiative in the performance of assigned responsibilities.
- \*(52) Provide for a safe and secure workplace.
- \*(53) Model and maintain high ethical standards.
- \*(54) Follow District attendance, punctuality, acceptable use, and dress policies.
- \*(55) Maintain confidentiality regarding District matters and legally protected information.
- \*(56) Maintain positive and professional relationships with staff and vendors.
- \*(57) Participate in workshops and training as necessary to acquire emerging skills and knowledge associated with Webmaster responsibilities.

#### **System Support**

- \*(58) Prepare all required reports and maintain all appropriate records.
- \*(59) Follow all School Board policies, rules and regulations.
- \*(60) Exhibit interpersonal skills to work as an effective team member.
- \*(61) Demonstrate support for the School District and its goals and priorities.
- \*(62) Perform other incidental tasks consistent with the goals and objectives of this position.

#### **PHYSICAL REQUIREMENTS:**

Heavy Work: Exerting up to 100 pounds of force occasionally, and/or up to 50 pounds of force frequently and/or up to 20 pounds of force as needed to move objects.

#### **TERMS OF EMPLOYMENT:**

Salary and benefits shall be paid consistent with the District's approved compensation plan. Length of the work year and hours of employment shall be those established by the District.

**EVALUATION:**

Performance of this job will be evaluated in accordance with provisions of the Board's policy on evaluation of personnel.

\*Essential Performance Responsibilities

**Professional Salary Schedule – Pay Grade 10**

**Date Approved by the Board: 8/19/03**

**Date of Revision: April 21, 2009**