JOB DESCRIPTION

TITLE
Data Warehouse Architect

JOB SUMMARY
This position of Data Warehouse Architect is responsible for developing, implementing, maintaining and administering the data warehouse system for the Department of Institutional Research & Improvement. Responsibilities include, developing, maintaining, and extending the data warehouse architecture, including the ETL process (Data Extraction, Transformation, Loading) as well as oversee data cleansing, data quality, data integration, data management and data governance strategies using SAS Management Console and SAS Data Integration Studio, in addition to other SAS products. This includes data integration from internal (university) and external (national, state, and other) database systems and other sources. Provides access to, and support users of the data warehouse environment and data visualization tools as appropriate. This includes the Business Intelligence services such as dashboards, and interfaces, and stored processes. This position requires detailed functional knowledge of the SAS programming environment as well as knowledge of SAS Data Integration, Data Management/Governance programs along with a strong working knowledge of relational database environments (such as Oracle). Other skills include, SQL, PL/SQL Developer or equivalent, Data Mining and Data Modeling. Work is performed under the supervision of the Assistant Provost for Institutional Research & Data Management and performance is based upon completion of assignments and results obtained. The performance evaluation is conducted through the performance evaluation system and in accordance with the University Policies & Procedures.

ORGANIZATIONAL RELATIONSHIPS
Reports to: Vice Provost for Institutional Research & Improvement
Supervises: As assigned

ESSENTIAL DUTIES - May include, but not limited to the following:

- Develops, maintains, and extends the data warehouse architecture, including ETL process (Data Extraction, Transformation, Loading) as well as oversee data cleansing,
data quality, data integration, data management and data governance strategies. This includes data integration from internal (university) and external (national, state, and other) database systems and other sources.

- Provides access to, and support to users of the data warehouse environment and data visualization tools as appropriate. This includes the Business Intelligence services such as dashboards, user interfaces, and stored processes.
- Creates and develops information repositories to facilitate a standardized source for consistent federal, state, internal, and other reports.
- Consults and/or collaborates with other Office of Technology teams on projects and integration issues to ensure that efforts are coordinated.
- May be required to work a flexible schedule, including nights, weekends and holidays.

**ADDITIONAL DUTIES**

- Works with IRDM and with external departments and groups to identify, understand, and resolve data integrity issues.
- Remains aware of current trends in Institutional Research and the use of Technology in the University environment.
- Develops programming skills in SAS and other programming languages as required.
- Performs other duties as requested.

**EDUCATION**

Bachelor’s degree in Mathematics, Computer Science, or related field required. Master’s degree in Mathematics, Computer Science, or related field preferred.

**EXPERIENCE**

Seven years job related work in computing and/or communications, education environment. Experience with SAS programming - Base SAS Certification is strongly preferred, experience with SAS Data Integration/Management/Governance tools. Experience with Data Mining and Data Modeling. Experience with advanced querying techniques within an Oracle database environment (such as PL/SQL).

**REQUIREMENT**

Regular and reliable attendance at the University during regular scheduled days and work hours is an essential function of this position.
KNOWLEDGE, SKILLS, AND ABILITIES - The following are essential:

Knowledge:

- Technical proficiency in multiple programming languages, reporting, integration and developer tools, and database or software architecture
- Database design and development including logical/physical data model design
- Extensive relational database and operating systems experience
- Detailed knowledge of software development processes and standards (coding standards, SDLC, etc.)
- Working knowledge of business principles and business and industry-specific terminology
- Building technology solutions that control costing, budgeting, risk and financial analysis
- Quality Assurance concepts and procedures

Skills:

- Skills with Data Mining
- Skills with Data Modeling
- Reporting and Integration: SAS Data Integration Studio, SQL Server Reporting Services (SSRS), SQL Server Integration Services (SSIS)
- Developer Tools: Base SAS programming environment, SAS Data Management Studio Microsoft Visual Studio, Team Foundation Server (TFS) or Version Control, Toad/SQL Developer
- Applications: SAS Management Console, Web Content Management (SharePoint), Document Management, Windows Workflow Foundation, some knowledge of IIS, Active Directory and SQL Server
- Strong technical background, self-directed, self-motivated
- Capable of assisting with software and database architectural designs
- Capable of managing technical projects and experience with project management tools
- Excellent communication, interpersonal, organization, problem solving
- Documentation systems and knowledge database
- Extensive relational database and operating systems experience
- Source code control
- Stored procedures, functions, and triggers
- Case tools and integrated development systems
- Code libraries including third party libraries
- Compilers, interpreters, debuggers and editors
- Configuration management methods
- Profilers and logical analyzers
- Test system utilization
• Software lifecycle activities
• Data flow and data structure modeling
• Relational, hierarchical and object oriented database architectures and structure
• Conflict Resolution
• Financial Analysis
• Leadership

Abilities:

• Ability to effectively balance multiple tasks.
• Ability to learn quickly, research and implement new technology and development tools.
• Ability to gather, interpret and document business requirements.
• Ability to identify technical problems, make recommendations, develop solutions, and complete technical projects.
• Ability to refactor older source code or design into modular/reusable components.
• Ability to operate on independent judgement based on an understanding of organizational policies and procedures.
• Ability to establish effective work relationships with students, faculty, staff, and the public.
• Ability to communicate effectively - orally, by phone, in person, and in writing.
• Ability to use a personal computer and other office equipment, including university related software and email.

PHYSICAL DEMANDS

The physical demands described in the Essential Duties and below are representative of those that must be met by an employee to successfully perform the essential duties of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

The employee may be required to travel. May be required to work a flexible schedule, including nights, weekends and holidays.

WORK ENVIRONMENT

All employees are responsible for maintaining an environment that is free from discrimination, intimidation, harassment, including sexual harassment. Work is normally performed in a typical interior work environment.

SAFETY

TWU promotes a safe working environment. Employees are responsible for completing assigned tasks safely and efficiently, and supervisors are responsible for creating and
maintaining a safe work environment. Employees must report any unsafe work conditions or practices, as well as any near-miss incidents, to their supervisor and Risk Management. Supervisors and employees should ensure that injury/accident reports are submitted to the Office of Human Resources and Risk Management within 24 hours of the incident.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Employee Signature: ________________________________  Date: ________________

Employee Printed Name: ________________________________

Texas Woman’s University strives to provide an educational environment that affirms the rights and dignity of each individual, fosters diversity, and encourages a respect for the differences among persons. Discrimination or harassment of any kind is considered inappropriate.

Texas Woman’s University is committed to equal opportunity in employment and education and does not discriminate on the basis of race, color, religion, gender, sex, sexual orientation, ethnic origin, age, veteran’s status, or against qualified disabled persons.

All positions at Texas Woman’s University are deemed security sensitive requiring background checks.