



POSITION DESCRIPTION

Position Title: Senior Programmer Analyst

Division: Institutional Analysis & Information Management

Classification: C2B – Computer Programmer 2B

Supervisor's Title: Manager, Institutional Analysis & Information Management

POSITION SUMMARY

Reporting to the Manager, Institutional Analysis & Information Management (I-AIM), the Senior Programmer Analyst specializes in software and business intelligence design and development, provides mentorship to junior technical staff, and may supervise other technical staff on a project basis.

The incumbent manages the end-to-end processes of developing, implementing and maintaining college-wide BI and software solutions including data warehousing, in-house application development and decision support systems such as dashboards and web enabled reporting.

The Senior Programmer Analyst supervises the work of the Programmer Analyst by providing guidance and regular code reviews and developing performance objectives. The incumbent critically reviews all code prior to implementation into production to verify consistency and conformance with established departmental guidelines, policies and practices as well as industry standard guidelines and best practices; manages acceptance testing and software implementation for assigned systems and/or projects. The incumbent conducts thorough problem analysis in regard to technical infrastructure and application software; document findings and proposes problem resolution alternatives. The incumbent is able to perform as a project leader of assigned projects from definition to implementation and ongoing maintenance; ability to manage both human and computer resources in a manner to ensure the project is verifiably accurate and on schedule. The incumbent works at all levels of all technical phases of programming; requires a high degree of creative thinking and the ability to use their accumulated technical knowledge and experience.

The incumbent will liaise and communicate with stakeholders from all other functional areas in the College in order to understand their business needs and requirements and documents these functional needs. The incumbent will receive guidance and direction from the manager in order to develop project plans and priorities. The incumbent manages all the College's ERP (Colleague) system interfaces to in-house developed applications and provide third party software support with regard to integration and maintenance of these systems with Colleague. The incumbent is the lead data integration architect for the college's data warehousing processes.

This role requires advanced knowledge of modern software and BI development technologies and data integration methodologies.

RESPONSIBILITIES AND ACCOUNTABILITIES

Primary:

APPLICATION DEVELOPMENT

- Develops and maintains BI and software applications and database systems by evaluating client needs and analyzing requirements.
- Arranges project requirements in programming sequence by analyzing requirements, preparing a workflow chart and diagram using knowledge of computer capabilities, subject matter, programming language, and logic.
- Uses coding standards to program the computer by encoding project requirements in programming languages, entering coded information into the computer (SQL, .NET, and other technologies).

RESPONSIBILITIES AND ACCOUNTABILITIES

- Confirms program operations by conducting tests, modifying program sequence, and/or codes.
- Consistently writes, translates, and codes software programs and applications according to specifications.
- Writes programming scripts to enhance functionality and performance of college applications as necessary.

PROJECT MANAGEMENT

- Accomplishes programming project requirements by coaching and supervising junior programmer analysts.
- Plans programming projects by confirming application objectives and specifications with stakeholders and clients.
- Prepares junior programmer analysts by providing technical guidance, training and educational opportunities, and monitors junior programmer analysts' performance.
- Enhances junior programmer analyst accomplishments and competence by planning the delivery of solutions, answering technical and procedural questions for junior programmer analyst, teaching improved processes, and mentoring junior programmer analyst.

STRATEGY & PLANNING

- Collaborates with all programmer analysts, ERP system analyst, and ITS in conceptualizing and developing new software and BI applications.
- Analyzes and assesses existing business systems and procedures.
- Leads in the definition, development, and documentation of software application and BI requirements, objectives, deliverables, and specifications on a project-by-project basis.
- Leads in defining software development project plans, including scoping, scheduling, and implementation.
- Researches, identifies, analyzes, and fulfills requirements of all internal and external stakeholders.
- Accomplishes department and college mission by successfully completing assigned projects and on-going operational initiatives on time.

ACQUISITION & DEPLOYMENT

- Conducts research on emerging application development software products, languages, and standards in support of procurement and development efforts.
- Liaises with vendors for efficient implementation of new third-party software products or systems and for resolution of any adaptation issues.
- Recommends, schedules, and performs software improvements and upgrades.

DATA MANAGEMENT & GOVERNANCE

- Develops, documents, and maintains web-enabled and drillable reports and dashboards.
- Integrates data from different sources.
- Extracts and manipulates large amounts of data from SQL databases and other databases by writing complex and efficient SQL queries.
- Conducts data cleansing and quality control.
- Develops and maintains technical data dictionary and metadata.
- Develops and maintains data models both logical and physical.
- Conducts data and source system analysis.
- Builds data integration solutions such as data marts and data warehouses.
- Develops data integration solutions for third party applications, ACC subsystems, and government requirements.
- Maintains data security and integrity of the system by implementing and maintaining college-wide security standards.

OPERATIONAL MANAGEMENT

- Liaises with ITS to assist in resolving problems with the network, in-house software applications, or college software systems.
- Designs, runs, and monitors software performance tests on new and existing applications for the purposes of correcting errors, isolating areas for improvement, quality assurance, and general debugging.
- Generates statistics and develops decision support applications (reports and dashboards) for management

RESPONSIBILITIES AND ACCOUNTABILITIES

and other stakeholders on the status of the programming application processes.

- Identifies requirements by establishing personal rapport with internal and external stakeholders and with other persons in a position to understand service requirements.
- Develops and maintains user manuals and guidelines for developed applications.
- Updates job knowledge by participating in educational opportunities, reading professional publications, and maintaining personal networks.

KEY RELATIONSHIPS (attach relevant organizational chart(s))

Staff Positions Directly Supervised 0 _____

Staff Positions Indirectly Supervised 0 _____

Other Key Relationships:

This position must work closely with all other I-AIM staff, Information & Technology Services, as well as functional area leaders and staff across the institution.

KNOWLEDGE, SKILLS, ABILITIES, OTHER

- **Education and Experience:** Bachelor's degree in computer science or a related field, and a minimum of 8 years of recent, related experience. Or an equivalent combination of education and experience.
- **Programming Skills:** Proficiency in various programming technologies, languages, and tools, including Visual Studio, C#.NET, .NET Core, Entity Framework Core, Azure DevOps, Razor/Blazor, JavaScript, jQuery, JSON, CSS, T-SQL, Power BI, SSRS, and SSIS. Knowledge of VB6, VB.NET, ASP.NET, ASP.NET MVC, ADO.NET is an asset.
- **Analysis Skills:** Strong analytical and problem-solving skills to understand business needs and translate them into technical solutions.
- **Database Skills:** Proficiency in database management systems, preferably Microsoft SQL Server. Additional knowledge of Oracle or MySQL is an asset.
- **Project Management:** Experience in project management and the ability to lead and coordinate application and BI development projects. Knowledge of agile development principles and practices.
- **Communication:** Excellent communication and interpersonal skills to work effectively with both technical and non-technical stakeholders.
- **Teamwork:** Ability to work collaboratively within a team and mentor junior team members.
- **Adaptability:** Willingness to learn and adapt to new technologies and tools, architectures, design patterns, and best practices.
- **Quality Assurance:** Knowledge of software testing and quality assurance best practices.
- **Security Awareness:** Understanding of cybersecurity principles and best practices to ensure system and data security.
- **Problem Solving:** Effective problem-solving abilities to identify and address issues in software and systems.

Employee's Signature

Date

Supervisor's Signature

Date