Job Description

UNIVERSITY OF
WATERLOO

Job Title:	Information Systems Analyst
Department:	Campus Housing
Reports To:	Assistant Director, Shared Services
Jobs Reporting:	Coop or part-time student staff
Salary Grade:	USG 9
Effective Date:	September 2022

Primary Purpose

The Information Systems Analyst (ISA) ensures the departmental information systems provide valuable data, reports, and other relevant information for staff to serve students effectively and efficiently. Reporting to the Assistant Director, Shared Services, the ISA is responsible for providing technical support and business analysis to successfully manage the department's operational information system(s). This includes proactive, timely and accurate data infrastructure assessment and the development of internal and external reports on a wide range of activities and issues in line with institutional and departmental mission, vision, values, and objectives. In cooperation with managers, coordinators, and front-line roles, these operations-oriented roles provide critical contributions toward maintaining information systems staff rely on to deliver quality services to students and other stakeholders.

Key Accountabilities

Technical Analysis for Campus Housing systems and applications
- The Information Systems Analyst (ISA) optimizes the application of departmental technology and business systems in alignment with the department's mission, vision, values, and objectives. This includes researching new technology opportunities with potential internal and external stakeholders. Develops executive summary of findings, presents to management and advocates for resources to advance the initiative, where applicable.
- Researches, elicits, analyzes, validate, specifies, verifies, and manages the requirements of stakeholders to provide technology solutions to address business problems.
- Assesses existing system capabilities, long term viability and requirements that support departmental objectives, business needs and growth.
- Develops in-depth systems expertise to support all functional teams. Apply process knowledge ensuring expected business systems are effective and are reliable.
- Liaises with stakeholders to clarify and understand requests for system or technical solutions. In collaboration with internal and external resources to ensure appropriate long-term support is in place (security, business continuity, scalability, support for upgrades).
- Manages approved projects ensuring appropriate project management practices are being followed and objectives are met.
- In cooperation with various stakeholders, oversees the life cycle of changes to internal business and information systems, manages changes including documentation and training

Support for Campus Housing systems (outside of IST accountability)
- Proactively monitors hardware and software applications targeting zero outage and minimal impact during critical periods. (Example: Residence Services desk systems during arrival days, Campus Housing database or any system outside of IST accountability).
- Troubleshoots and resolves any issues, consulting with vendors when appropriate.
- Ensures documentation and regular maintenance schedules are in place and followed.

- Maintains and troubleshoots secure computer environments.
- In partnership with internal and external resources, understands when and how to execute infrastructure upgrades ensuring business continuity.
- Provides leadership of technical upgrades and advanced troubleshooting of production issues.
- Maintains general knowledge of technical projects across campus to identify opportunities for collaboration.
- Maintains professional and technical knowledge in a variety of ways including, but not limited to, attending educational workshops, reviewing professional publications, establishing personal networks, benchmarking practices, participating in professional societies, and regularly participating in user group events and activities offered by vendors.
- Hires, trains, and support coop student(s) to support systems as required.
- Accountable for level 1 and 2 support and involving additional resources when more advanced support is required.

Test planning, preparation, and execution
- Reviews all related documentation such as product testing scripts, requirement details and functional design documents to determine the test requirements.
- Develops plans, designs, and writes comprehensive testing scripts to ensure application change requirements are met from a business perspective
- Ensures that adequate number of test cases with appropriate conditions are available for test execution
- Implements tests for both individual defect fixes/design changes
- Executes standard regression tests to ensure that unchanged functionality has not been negatively affected by changes
- Monitors progress of test execution to ensure testing is completed in accordance with testing schedule
- Documents issues / defects from expected results and manages them to closure.
- Acts as a change agent. Trains functional teams on system changes, process improvements, and change management activities and project management tools.
- Ensures that process and information technology solutions delivered/supported are aligned with effective business practices and departmental objectives.
- Represents the interests of stakeholders during business systems maintenance and development activities.

Data accuracy and integrity – business-critical systems
- Liaises with all stakeholders to ensure that data and processes in the central student information system (SIS) and departmental systems meet quality standards and meet the needs of students.
- Translates statistical results of data analysis into reports and presentation for use by key stakeholders and decision makers.
- Develops and maintains a variety of datasets.
- Maintains a broad and up-to-date awareness of the activities performed within the department to identify and address confirmed or potential data and process issues.
- Authors, communicates and provides training on departmental information systems policies and practices to staff across campus.
- Regularly consults with the department to promote understanding of policies, practices and system behavior.
- Represents the interests of the department when system behavior needs to be changed.
- Authors, revises and maintains systems documentation such as business rules, procedures, schedule information and administrative course notes.

- Ensures departmental staff are appropriately trained and up to date on information system(s) developments, policies and procedures.
- Represents the department on working groups and actively participant in cross-functional team projects, including but not limited to IST Data reporting and analytics team, Registrar's Office systems teams

All employees of the University are expected to follow University and departmental health and safety policy, procedures and work practices at all times. Employees are also responsible for the completion of all health and safety training, as assigned. Employees with staff supervision and/or management responsibilities will ensure that assigned staff abide by the above, and actively identify, assess and correct health and safety hazards, as required.

Required Qualifications

Education
- Undergraduate degree or equivalent education and experience required
- Certified Business Analyst Professional (CBAP) certification preferred

Experience
- 3-5 years of experience with a proven track record of achievement and success in information systems management.
- Experience in analyzing large and complicated datasets using industry standard tools (e.g., Power BI, Tableau, Excel) to generate business information for management decisions.
- Proven experience in developing test cases, based on use cases and requirement specifications, and conducting/documenting SQA using industry standard applications.
- Be conversant with new and emerging educational technologies including learning/content management systems, SIS, online collaboration software, various hardware formats and multimedia technologies in general.

Knowledge/Skills/Abilities
- Firm grasp of industry standard software development methodologies, techniques and Systems Development Lifecycle (SDLC).
- Demonstrated experience in software quality assurance methods, tools and standards.
- Hands-on skills in writing complex SQL database queries.
- Knowledge of data analysis, visualization and reporting tools (advanced MS Excel, Power BI, and Tableau).
- Must be a team player with superior work ethic, initiative, and the ability to work independently with minimum supervision.
- Excellent verbal and written communication skills, organization skills and time management. Good 'people skills' for building relationships with colleagues at all levels. Familiarity with SharePoint is an asset.

Nature and Scope
- **Contacts:** Internally, communicates with employees in all groups within the department and IST to resolve issues related to area of responsibility. Strong interpersonal and communication skills are required to understand technical details and complex business requirements, facilitate workshops and negotiate with stakeholders to design solutions that meet overall department needs
- **Level of Responsibility:** Under the direction of the Manager, Business Systems, this position is responsible for supporting the functional systems analyst effort with respect to Campus Housing technology while supporting and participating in complex projects, systems design and system analysis.

- **Decision-Making Authority:** Responsible for developing recommendations for review by the Manager, Business Systems to ensure the Campus Housing is delivering maximum effectiveness aligned with stakeholder and overall department needs.
- **Physical and Sensory Demands**: Requires high attention to detail and must handle distractions, changing priorities and interruptions, while meeting required deadlines.
- **Working Environment:** Minimal exposure to disagreeable conditions, typical of a position exposed to deadline pressures and accountability. There will be situations that will require the employee to work outside and in addition to the core business hours including, but not limited to resolving critical problems for processes that may have failed outside of core hours and/or providing support for upgrades outside of core hours. It is expected that these will be unusual situations and every attempt will be made to limit this as much as possible.