

**QUEEN'S UNIVERSITY LIBRARY
POSITION DESCRIPTION**

POSITION TITLE:	Senior Web Development and User Experience Technician
LIBRARY UNIT:	Discovery Systems
STATUS:	One Year Term, Full-time

HOURS OF WORK:

The regular hours of work are from 9:00 a.m. to 5:00 p.m., Monday through Friday.

SUMMARY OF DUTIES:

Within the framework of established policies, regulations and procedures, in consultation with the Systems Coordinator, the Division Head of Discovery Systems and other Discovery Systems staff, the incumbent provides technical expertise and support for the Library's web presence. Duties include development of new web applications and maintenance and enhancement of existing web applications from simple to complex; ensuring the smooth operation of designated Library web software systems (eg. Drupal, WordPress, DokuWiki, and in-house web applications) with appropriate documentation, back-up, maintenance and upgrades; diagnosis, research and troubleshooting of problems with the Library's web presence, escalating issues as necessary, and documenting solutions; exploring new web software systems; providing user support for web systems; assisting in development of web analytics tracking reports and in implementing analytics and usability driven web page modifications; providing back-up for other senior Discovery Systems technicians in the areas of user support, database administration, and user support.

SUPERVISION:

The position is supervised by the Systems Coordinator. Written assessment during and at end of trial period, and annual review thereafter, by the supervisor. Works independently when fully trained. For complex problems and policy issues, consults primarily with the Systems Coordinator but also, as appropriate, with software vendors, and Library and ITS staff. The nature of problems referred and on-the-job observations provide an opportunity for indirect review, and indicate where training needs reinforcement.

TRAINING AND INSTRUCTIONS PROVIDED:

On-the-job training, coordinated by the Systems Coordinator. In-house manuals written by Discovery Systems/Systems Support Team staff. Commercial computer hardware and software vendors' manuals and release notes (published chiefly online). Specialized courses, seminars and workshops as required and as available.

INTERACTIONS AND EQUIPMENT:

The incumbent works with, or comes in contact with, Library patrons, Library staff, Queen's Information Technology Services staff and vendor/distributor/manufacturer representatives in person, by telephone or electronically.

The incumbent will regularly use the following equipment:

- Standard computer and library/office equipment
- Wide use of all PC and server-based operating systems, networking software and application software (particularly those specific to web application development.)
- Computer hardware components

QUALIFICATIONS: (Skill)

Education & Experience:

1. Recent college diploma or other post-secondary education specializing in web application development and user driven design, and a minimum of one year of proven and recent experience in complex database driven website development, preferably in a high-demand user-centred environment.

Or

The equivalent combination of education and experience which must include a minimum of two years' proven and recent experience in complex database and user focused website development, preferably in a high-demand user-centred environment.

2. Proven proficiency with PHP, SQL, relational databases (e.g. MySQL, Oracle, PostgreSQL), HTML, CSS, CVS/SVN. Desirable experience: Unix system administration, Apache administration, experience with web application performance tuning.
3. Proven experience with library specific web applications (e.g. ILS, Discovery Layer, Open Journal Software, Institutional Repository, OpenURL resolver) desired.
4. Proven experience working in a team environment an asset.
5. Familiarity with Queen's computing infrastructure an asset.

Special Skills, Knowledge or Ability:

Ability to communicate well and work as part of a team in which members advise and consult with each other as part of the problem-solving process; good analytical and problem-solving skills and ability to work independently; ability to document work performed or needing to be performed; demonstrated ability to pay attention to detail and perform work with a high degree of accuracy; demonstrated ability to exercise good judgment in referring highly technical or difficult problems to others; communication and interpersonal skills to interact with a variety of people with various levels of technological

sophistication; client service approach essential; strong ability to read and write technical documentation; ability to explain and provide guidance in the use of computers and Library web applications; flexibility and ability to respond to emergencies and conflicting demands on time; ability to stay abreast and adapt to emerging technologies; ability to meet the physical demands of the position as outlined in Working Conditions.

DECISION MAKING: (Responsibility)

Within the framework of established policies, regulations and procedures, the incumbent will frequently exercise initiative, judgment, and resourcefulness. Based on substantial and specialized knowledge and experience, maintains and supports Library web applications. Solves problems with these applications and recommends procedural or technical changes as appropriate. Both advises and consults with other library staff in solving problems. Makes recommendations in procedures or new work routines; decides when to consult with Systems Coordinator when undertaking new initiatives or when solving complex problems. Determines deadlines, prioritizes and coordinates work for self.

TYPICAL DUTIES & RESPONSIBILITIES: (Effort & Responsibility)

- 1) Provides technical expertise and support for the library's website and web applications:
 - a) Assists in project planning, for example by analyzing requirements and providing technical recommendations to the Systems Coordinator and/or relevant teams.
 - b) Perform complex functional enhancements and local customizations to web systems, investigating pre-existing add-ons or providing original programming as appropriate. Systems include websites built using both propriety and open source tools such as PHP and Drupal, and more library specific tools such as OJS for hosting journal content, and DSpace institutional repository software.
 - c) Apply user feedback appropriately to build user interface applications and back-end databases using various programming and scripting languages.
- 2) Works with Library, University ITS and vendor support staff as appropriate to ensure smooth operation of library web applications:
 - a) Maintains awareness of the library's web server environment; ensure backups and maintenance are performed; monitor usage/error logs for performance issue and problems with software routines; takes appropriate measures to ensure security of the Library's web presence is maintained; ensure appropriate documentation is in place.
 - b) Maintains awareness of new releases, patches and security issues with web related systems; resolves complex problems and upgrade, patch, fix and configures systems when appropriate.
 - c) Manages user accounts and access privileges; performs user account maintenance.

- 3) Provides user support for web applications:
 - a) Responds to technical questions from staff about the operation/capability of web applications; troubleshoot problems as they occur.
 - b) On an ongoing basis, provides training and support for web content providers, and assistance with content migration when required.
 - c) Creates and maintains thorough documentation of scripts and processes used to maintain the library's web presence; documents solutions to problems encountered or best-practices for trouble-shooting recurring problems.
 - d) Answers queries from Queen's students, faculty and staff about processes related to the Library's web presence via email, telephone and occasionally in person.
- 4) Participates in the planning, implementation, development and support of new web applications:
 - a) Works with the Systems Coordinator to research and evaluate potential software products.
 - b) Participates in the gathering of user feedback in determining requirements for new systems. Interprets system/server and user requirements for new software systems and communicates those requirements to Discovery Systems, Library, ITS and vendor support staff.
 - c) Installs and configures new software systems and assists in the planning, scheduling and coordination of content migration, and data importing and exporting.
- 5) Participates in Discovery Systems and Library projects and planning:
 - a) Participates in Discovery Systems division planning and management by contributing to meetings and discussions, project plans, and decision making.
 - b) Provides advice to Library colleagues, teams and committees, being capable of clearly communicating best practices, emerging technology trends and IT requirements to both technical and non-technical colleagues alike.
- 6) Provides back-up for other senior Discovery Systems technicians in the areas of server support, database administration and user support.

WORKING CONDITIONS:

Organizational

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| 1. Reporting to multiple supervisors. | OFTEN |
| 2. Working in isolation or working alone. | OFTEN |

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| 3. Dealing with upset, angry patrons. | SELDOM |
| 4. Dealing with interruptions and conflicting demands on time. | ALMOST ALWAYS |
| 5. Replacement required before leaving service point. | NEVER |
| 6. Handling unpredictable and unexpected workflow. | SOMETIMES |
| 7. Lack of privacy. | OFTEN |

Physical

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| 1. Dealing with conditions of inclement weather, dust/dirt; noxious substance (photocopier chemicals), conditions of heat/cold, conditions of insufficient ventilation/lighting, eye/ wrist strain. | SELDOM |
| 2. Exposure to infectious diseases. | SOMETIMES |

Work Position/Physical Strain

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| 1. Work requires lifting/carrying equipment/books. | SELDOM |
| 2. Work requires pushing/pulling loaded book trucks. | SELDOM |
| 3. Work requires bending, kneeling, stretching such as is required in filing, shelving books, etc. | SELDOM |
| 4. Work may be confined to either sitting, standing or walking. | OFTEN |
| 5. Work requires travel between campus libraries. | SELDOM |