PEA Job Description

1. Position Identification

<table>
<thead>
<tr>
<th>Position Number</th>
<th>992040, 992041, 992042, 993111, 993112, 993113, 995637, 998891, 998913</th>
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<tbody>
<tr>
<td>Position Title:</td>
<td>Senior Software Developer</td>
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<tr>
<td>Department:</td>
<td>UVic Online, Development Services</td>
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<td>Reports to:</td>
<td>Team Lead</td>
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<tr>
<td>Number of Direct/Indirect Reports</td>
<td>Direct &gt;=0       Indirect &gt;=0</td>
</tr>
<tr>
<td>Classification Level</td>
<td>SG 13</td>
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<tr>
<td>Last Updated</td>
<td>August 2018</td>
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2. Position Summary

University Systems (http://www.uvic.ca/systems/) serves a diverse client base including students, faculty and world-renowned researchers. We consist of three major units: Academic & Administrative Services, Infrastructure Services, and UVic Online, all working together to provide computing, communications and technology in support of the university's learning, teaching, research and administrative activities. We support high profile research projects like VENUS, NEPTUNE and ATLAS and work as part of the BCNET consortium. We exist in a complex work environment where we must effectively navigate complex, cutting edge and ever-changing technology, and information security and privacy issues in order to be the best information systems organization in the Canadian university system.

The UVic Online department within University Systems at the University of Victoria plays a pivotal role in implementing new enterprise-wide software systems, continuously improving existing systems, and providing University-wide data stewardship. We are a dynamic team, which continues to implement exciting and powerful software systems -- systems which have enabled UVic to become one of the most technologically advanced and well integrated universities in North America.

Reporting to the Team Lead Development Services, the Senior Software Developer is responsible for providing senior technical leadership within UVic Online. This position takes a lead role in the analysis, design, development, maintenance, and support of enterprise information systems for the University of Victoria, including:

- core administrative systems (ERP) and business applications,
- academic systems,
- web sites and applications,
- enterprise reporting, and
- identity management.

Functions include: project management, in-depth analysis and investigation of business/functional requirements, development, maintenance and enhancement of information systems and the creation of related documentation related to the implementation of information systems. Consults with and trains technical and functional staff on the use of enterprise information systems.
3. **Key Responsibilities and Expectations**

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<th>Key Responsibilities</th>
<th>Expectations:</th>
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| **Develop new components, enhancements, customizations and reports for enterprise information systems 70%** | • Oversee the planning, designing and implementing of system enhancements and complex reports for new and existing enterprise information systems  
• Work with both senior technical and non-technical staff to perform analysis of business requirements in order to provide recommendations and create technical specifications required to implement a solution with the greatest benefits with the lowest risk and cost  
• Independently analyze, plan, implement, integrate, test and document minor/major system enhancements and complex reports for new and existing enterprise information systems to meet the business requirements of the University  
• Create and maintain technical and functional documentation for first-level support staff, colleagues and clients  
• Coordinate testing of new/existing information systems with clients to ensure solutions are tested sufficiently  
• Attend training sessions to learn new technologies and skills related to the continued development of enterprise information systems |
| **Operations Support: troubleshoot and repair production enterprise information systems 20%** | • Communicate with clients to determine source of problems and associated details  
• Assist clients in determining if problem is due to improper use of system, system failure or improper design  
• Diagnose and correct problems in consultation with vendors and other technical staff where appropriate  
• Update relevant documentation/wiki once resolution has been implemented |
| **Provide advice, consultation and training to clients and colleagues on information systems and related technical matters 10%** | • Cross-train technical staff on the support and maintenance of information systems  
• Cross-train technical staff on the use of technologies, programming languages and information systems  
• Consult with other technical staff and provide expert level advice on the use of supported information systems  
• Consult with clients on the use of information systems and assist in determining the feasibility of requested modifications  
• Train clients on the use of information systems and on new functionality created by modifications to existing information systems |

4. **Classification Factors:**

**Problem-Solving:**
This position involves a high degree of technical analysis and creative problem solving. Identifies solutions to support strategic goals and enterprise-wide priorities, at times without benefit of precedent or existing guidelines. Designs complex multi-faceted enterprise information systems used by faculty, staff, students, alumni, and community members in support of the University’s learning, teaching, research, and administrative objectives. Systems may incorporate components operating on a variety of technology platforms, including existing custom applications and vendor-managed systems. Solutions must be designed to consider security, efficiency, reliability, usability, and supportability, while also
considering both functional and technical constraints. Extensive investigation is required to conceive new methods, procedures and policies for the development and maintenance of enterprise software systems.

This position also serves as the subject matter experts on a number of applications and technologies, and is called upon to resolve issues identified with existing information systems, which are critical to the operation of the university. Probes for, and points to, subtle and unclear relationships in highly complex matters and evaluates the merit of potential solutions; anticipates the possible outcome of potential solutions. Systematically identifies and exercises judgment in resolving complex enterprise-wide issues while communicating both the nature of the issues and their resolutions to leadership.

**Responsibility for Financial & Material resources:**
Provides recommendations on the upgrade/implementation of software applications (ranging from several thousand dollars up to several hundred thousand). Final approval of these recommendations would typically require senior leadership involvement.

**Responsibility for Human Resources:**
Provides informal direction to small teams (<5) while performing project management duties using the Project Management Office (PMO) process. Provides information direction, training, and guidance to other University Systems staff for systems and applications where the position has subject matter expertise. May participate in job competition selection committees.

**Impact of Decisions and Actions:**
The applications and systems supported by Uvic Online are used by the entire University community in support of teaching, learning, research, and administration objectives. The actions of this position impact academic faculties and departments, research projects, campus business operations and administrative computing at the university. If there is an interruption or degradation in an enterprise wide application, this position must be able to determine the cause and take corrective action.

**Independence:**
Works under administrative and broad technical and strategic direction of the Manager, Development Services and the Team Lead, Development Services. The work is largely self-managed and is reviewed based in terms of objective achievements. Generally, works within assigned areas of responsibility with minimal daily involvement from leadership.

Makes independent studies and analyses of complex problems as well as judgments in the identification of solutions, which are not always easily found. Solutions are generally guided by procedures, policies and precedents however, investigation is at times required to modify methods and procedures and to create new ones, including decisions that can impact departmental processes. Analyzes client requirements to design and develop a solution that will meet business objectives while creating an efficient and sustainable technical solution. Solutions often involve complex integration between disparate systems and technologies. This may require developing innovative solutions to meet user requirements. Develops and documents best practices and operational procedures. There is a high expectation that systems within the incumbent’s areas of responsibility will work correctly, efficiently, and to the satisfaction of users.

**5. Summary of Qualifications:**
This position requires a Bachelor’s Degree in Computer Science or other relevant discipline plus several years of experience in the development and maintenance of complex and integrated system in a large enterprise environment.

An equivalent combination of education and experience may be considered.
Knowledge requirements include:
• Expert knowledge of:
  o Modern programming languages and frameworks
  o Software testing procedures and frameworks
  o Modern technical architectures and configuration
  o Supporting and maintaining enterprise scale software
• Familiarity with project management processes

Areas of specialization may require additional expertise in one or more of the following areas:
• Reporting and analytics (Business Intelligence Platform, advanced database knowledge)
• Front end web development (Content Management Systems, application front end development)
• Enterprise application development and support (Enterprise Resource Planning Systems, Student Information Systems, custom application development)
• Identity access management (Identity Management Platforms)

Competency requirements include:
• Ability to be an enthusiastic and resourceful team member, with excellent interpersonal and communication skills (written and oral) in order to interact effectively with colleagues, staff and vendors in a client-oriented environment.
• Ability to successfully contribute to complex projects: developing project work plans; monitoring and directing the activities of a project team
• Willingness and ability to acquire new computing and other related skills independently
• Ability to successfully lead, mentor and coach technical staff
• Ability to problem solve effectively
• Ability to write coherent technical and user documentation
• Ability to work in an effective and organized manner in a complex environment
• Ability to provide technical leadership for complex software projects and creating technical design specifications

Assets include:
• Familiarity with higher education business processes

Employee’s Signature: ___________________________ Date: __________

Manager's/Supervisor’s Signature ___________________________ Date: __________