# PEA Job Description

## 1. Position Identification

<table>
<thead>
<tr>
<th>Position Number</th>
<th>998473; 998517</th>
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<tbody>
<tr>
<td>Position Title</td>
<td>Senior Lab Instructor</td>
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<tr>
<td>Department</td>
<td>Department of Computer Science</td>
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<td>Reports to</td>
<td>Experiential Learning Coordinator</td>
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<tr>
<td>Number of Direct/Indirect Reports</td>
<td>Direct 0  Indirect 0-15 (depends on courses)</td>
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<tr>
<td>Classification Level</td>
<td>SG 10</td>
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<tr>
<td>Last Updated</td>
<td>06/2018</td>
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## 2. Position Summary

The Department of Computer Science in the Faculty of Engineering has a complement of around 30 regular faculty members and 13 support staff. The Department offers a wide range of degree options, as well as several courses which are required for degrees in other Departments and Faculties. Many of the courses offered by the Department include comprehensive experiential learning components, including laboratory instruction.

Reporting to the Experiential Learning Coordinator (and in close consultation with individual course instructors), the Senior Lab Instructor is responsible for development of laboratory materials, laboratory instruction, development of marking schemes and marking for undergraduate courses offered by the Department. Based on the needs of a particular course, and the preference of the instructor of that course, the leadership of the course's team of teaching assistants may also be assigned to the Senior Lab Instructor.

This position focuses primarily on large first- and second-year courses with a laboratory or tutorial component, and will also occasionally require laboratory/tutorial instruction and marking for higher level courses. Senior Lab Instructors will also make long term contributions to continuity of first- and second-year instruction, by developing and maintaining instructional materials and automation (for marking and course organization) which will be provided to all course instructors and teaching assistants for future course offerings. Senior Lab Instructors will also perform other duties similar in scope and complexity as required.

## 3. Key Responsibilities and Expectations

### Key Responsibilities.

<table>
<thead>
<tr>
<th>% of time</th>
<th>Laboratory/Tutorial Instruction and Teaching Support 60%</th>
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<tbody>
<tr>
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<td>• Teach undergraduate laboratory and tutorial sections.</td>
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<td>• Meet regularly with the instructors of assigned courses, and other teaching support staff assigned to those courses when applicable.</td>
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<td>• When necessary, substitute for other teaching support staff.</td>
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<td>• Design marking guides for student submissions in consultation with course instructors.</td>
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<td>• Adapt automated marking infrastructure for the needs of each course.</td>
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<td>• Grade and provide feedback for student work (including assignments, exams and quizzes).</td>
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<td>• Coordinate grading responsibilities for teaching assistants.</td>
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• Maintain grading, attendance and feedback records.
• Handle student inquiries regarding grading and record keeping.
• Provide individual student contact hours as assigned (e.g. scheduled office hours, email correspondence, contributions to course discussion forums).
• Administer and maintain course technology (including online learning management systems) in conjunction with the course instructor.
• Train and lead teams of teaching assistants for large undergraduate courses, including delegating and overseeing marking duties as directed by the course instructor and Experiential Learning Coordinator.

Preparation of Instructional Material and Software 30%

• In consultation with course instructors, prepare materials for laboratory instruction, including lab notes, slides, software guides, assignments, quizzes and study materials.
• Coordinate the materials developed for each course to align with the educational goals of the course and the pedagogical approach of the instructor.
• Implement and maintain automated systems for marking student work (including assignments, exams and quizzes) and document the function of such systems for future users.
• Publish the source documents for instructional materials and the source code for automated marking and testing software to a Departmental collaboration platform for use by others, as instructed.

Administration and Professional Development 10%

• Meet as required with the Experiential Learning Coordinator, department chair or designate.
• Attend department meetings and serve on Departmental committees as assigned.
• In consultation with the Experiential Learning Coordinator, attend seminars offered by the UVic Division of Learning and Teaching Support and Innovation (LTSI).
• Maintain currency with technology and instructional methods.

4. Classification Factors:

Problem-Solving:
This position requires dynamic problem solving both in an organizational sense (to handle expected and unexpected issues arising in large teaching teams) and in an educational sense (to design and critically evaluate instructional materials). Designing and tailoring software automation for each course also requires significant independent problem solving and critical thinking skills.

In particular, the development of grading infrastructure for large Computer Science courses with programming-based assignments poses a challenge unique to this discipline. Since computer programs must be tested and analyzed, instead of simply being read by a human marker, the grading of programming assignments is significantly more complicated than the traditional grading scheme used for written work (such as essays and experiment writeups). The Senior Lab Instructor must draw on both instructional and technical expertise to ensure that grading is fair, logistically feasible, and educationally comprehensive (both in terms of providing meaningful feedback to students and providing an accurate measurement of their technical skills).
### Responsibility for Financial & Material resources:
Not applicable.

### Responsibility for Human Resources:
The Senior Lab Instructor provides guidance, direction, training and informal supervision to teaching assistants as required in their assigned courses, as part of their responsibilities to lead teams of teaching assistants. When serving as the leader of a team of teaching assistants, the Senior Lab Instructor tracks the usage of the teaching support resources (such as available hours) for each member of the team.

### Impact of Decisions and Actions:
The Senior Lab Instructor has a direct impact on students (by serving as their laboratory or tutorial instructor) as well as an indirect impact through their contributions to the development of instructional materials. The oversight and organization aspects of the Senior Lab Instructor role also have a significant impact on the quality and continuity of instruction in the Department.

### Independence:
The SLI takes guidance from course instructors, the Experiential Learning Coordinator and the Undergraduate Studies Programs Coordinator, and reports to the Experiential Learning Coordinator on all issues.

The work of the Senior Lab Instructor is performed in accordance with clearly defined Departmental and University practices, procedures and policies, in conjunction with the instructors of assigned courses. Within the context of each course, there may be considerable variation in work methods, authority and decision making.

### 5. Summary of qualifications:
This position requires a Master's degree in Computer Science (or a related field) with teaching experience in a post-secondary setting. An equivalent combination of education, training and experience may be considered.

Knowledge requirements include:
- Introductory computing and business applications
- Programming fundamentals in C, C++, Java and Python
- Algorithms and data structures
- Computer architecture and assembly language
- Software engineering fundamentals

Competency requirements include:
- Excellent analytical, critical thinking and problem solving skills.
- Excellent written and verbal communication skills.
- Ability to work independently and collaboratively in a team environment.
- Ability to work effectively and respectfully with a diverse student population and with all levels of university personnel.
- Understanding and patience for the needs of undergraduate students.
- Demonstrated administrative, organizational and team-management skills.
- Proven ability to build consensus, to work co-operatively and collaboratively, and to contribute effectively with Departmental colleagues.

### Employee's Signature:  
Date:

### Manager’s/Supervisor’s Signature  
Date: