# FALL 2017 POSTING: SESSIONAL INSTRUCTOR REQUIREMENTS

**OPEN: JULY 10, 2017  
CLOSE: JULY 24, 2017**

The School of Computing Science is now accepting applications for Sessional Instructors for the Fall 2017 term (appointment dates: September 1 – December 22, 2017). Instructors are required at all three campuses, for the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Name</th>
<th>Course Requirements</th>
<th>Campus</th>
<th>Day/Time</th>
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</thead>
<tbody>
<tr>
<td>CMPT 128</td>
<td>Introduction to Computing Science and Programming for Engineers</td>
<td>Computer Science and programming for Engineering Science students or a related program. A strong math background is required. Knowledge of fundamentals of object oriented programming including fundamental algorithms and problems solving, basic object oriented programming and software design, elements of empirical and theoretical algorithms, Programming language common to Engineering Science.</td>
<td>Burnaby</td>
<td>M/W/F 14:30-15:20</td>
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<tr>
<td>CMPT 166</td>
<td>An Animated Introduction to Programming</td>
<td>Working knowledge of graphics and animation programming using Python or Java</td>
<td>Surrey</td>
<td>M/W/F 13:30-14:20</td>
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<tr>
<td>CMPT 225</td>
<td>Data Structures and Programming</td>
<td>Knowledge of data structures and methods for implementation and for experimental and analytical evaluation. Experience working with stacks, queues and lists; search trees; hash tables and algorithms; efficient sorting; object-oriented programming; time and space efficiency analysis; and experimental evaluation.</td>
<td>Burnaby</td>
<td>M/W/F 10:30-11:20</td>
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<tr>
<td>CMPT 275</td>
<td>Software Engineering I</td>
<td>Git version control system, including branches, C++, particularly with 2011/2014 extensions, REST / HTTP interfaces to services, cloud computing, experience with the software development process, project planning and project management, experience with software implementation, testing and data normalization processes, experience with ruby on rails, HTML, CSS, and Javascript</td>
<td>Burnaby</td>
<td>Monday 17:30-20:20</td>
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</tbody>
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| CMPT 310 | Artificial Intelligence Survey | • Knowledge of fundamental approaches to the problems in artificial intelligence; representational typology, game playing, I heuristic programming, pattern recognition and classification, theorem proving, computer vision. | Burnaby | Tuesday 13:30-14:20  
 Thursday 12:30-14:20 |
| CMPT 363 | User Interface Design | • Experience with goals and principles of UI design, current perspective, • experience with the design of useable human-computer interfaces and user-centered design techniques, interaction design, etc | Vancouver | Wednesday 17:30-20:20 |
| CMPT 371 | Data Communications & Networking | Working knowledge of communications protocols at the transport, network and link layers: UDP, TCP, congestions and flow control, forwarding, addressing, routing; multiple access protocols: LAN, WLAN | Vancouver | Monday 17:30-20:20 |
| CMPT 376W | Technical Writing + Group Dynamics | • Technical & report writing practices and techniques  
• A good understanding of English grammar and syntax | Burnaby | M/W/F 10:30-11:20 |
Comparative Language Programming
Knowledge of concepts and principles underlying the design and use of modern programming languages in the context of procedural, object-oriented functional and logic programming languages.

Database Systems
Knowledge of database systems including crash recovery, concurrency control, transaction processing, distributed database systems and experience working with object-oriented data models and systems, extended relational systems, deductive database systems, and security and integrity.

Requirements Engineering
Experience with software development methodologies, rapid prototyping, metrics, models and standards for quality assurance and control. Testing management.

Qualifications
A graduate degree or equivalent qualification in computer science, or a related discipline together with evidence of teaching ability and experience commensurate with the specific requirements of the course.

Course Outlines
Available at: https://portal.cs.sfu.ca/outlines

Please mail, fax, or email a cover letter indicating which courses you are interested in teaching, along with your resume or CV to:
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Simon Fraser University
Burnaby, BC V5A 1S6
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Email: bbart@sfu.ca

cc: CMPT Grad Students
Current Sessionals
TSSU