<table>
<thead>
<tr>
<th>Department of Electrical and Computer Engineering</th>
<th>Campus</th>
<th>Course Number</th>
<th>Title</th>
<th>Number of Positions (est.)</th>
<th>Size of Appointment (# of hours)</th>
<th>Dates of Appointment</th>
<th>Tutorial/Lab Schedule (if known)</th>
<th>Qualifications</th>
<th>Duties</th>
<th>Posting Date</th>
<th>Closing Date</th>
<th>Emergency Posting?</th>
<th>Salary</th>
<th>Application Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. George</td>
<td>ECE101H1S</td>
<td>Computer Fundamentals</td>
<td>395</td>
<td>Teaching Assistant</td>
<td>10</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.utoronto.ca/sites/timetable/winter.html">https://portal.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Expert knowledge of C programming language and computer systems and problem solving using computers; the representation of information, programming techniques, programming style, basic loop structures, functions, arrays, strings, pointer-based data structures and searching, and sorting algorithms.</td>
<td>Duties may include conducting tutorials / laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructors and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
</tr>
<tr>
<td>St. George</td>
<td>ECE110H1S</td>
<td>Seminar Course: Introduction to Electrical and Computer Engineering</td>
<td>212</td>
<td>Teaching Assistant</td>
<td>3</td>
<td>10</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.utoronto.ca/sites/timetable/winter.html">https://portal.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Fundamental knowledge of Electrical and Computer Engineering</td>
<td>Duties may include conducting tutorials / laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructors and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
</tr>
<tr>
<td>St. George</td>
<td>ECE110H1S</td>
<td>Electrical Fundamentals</td>
<td>617</td>
<td>Teaching Assistant</td>
<td>20</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.utoronto.ca/sites/timetable/winter.html">https://portal.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Proficient knowledge in the physics of electricity and magnetism and circuit analysis.</td>
<td>Duties may include conducting tutorials / laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructors and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
</tr>
<tr>
<td>St. George</td>
<td>ECE110H1S</td>
<td>Fundamentals of Electric Circuits</td>
<td>266</td>
<td>Teaching Assistant</td>
<td>8</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.utoronto.ca/sites/timetable/winter.html">https://portal.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Expert knowledge of DC linear circuit elements and analysis, transient response of linear circuits, AC power circuits</td>
<td>Duties may include conducting tutorials / laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructors and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE216H1S</td>
<td>Signals and Systems</td>
<td>360 Teaching Assistant</td>
<td>10</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter.html">https://portal.engineering.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Expertise in fundamental electrical and magnetic fields, such as electromagnetic fields, current-voltage relationships, and basic circuit analysis. Duties may include conducting tutorials with students, discussing fundamentals of circuits, and preparing demonstration material. Pay is $45.33 per hour x 60 hours + 4% vacation per x 60 hours. Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a>.</td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE231H1S</td>
<td>Computer Organization</td>
<td>357 Teaching Assistant</td>
<td>15</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter.html">https://portal.engineering.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Expert knowledge of the design of central processing unit, hardware and microprogrammed control, input-output and the use of interrupts. Arithmetic circuits, assembly language programming, memory organization, peripherals and interfacing, and microprocessors. System design considerations. Duties may include conducting tutorials with students, discussing fundamentals of computer organization, and preparing demonstration material. Pay is $45.33 per hour x 60 hours + 4% vacation per x 60 hours. Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a>.</td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE239H1S</td>
<td>Electromagnetism</td>
<td>193</td>
<td>Teaching Assistant</td>
<td>6</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td>60</td>
<td>October 26, 2018</td>
<td>October 2, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE237H1S</td>
<td>Communication and Design</td>
<td>353</td>
<td>Teaching Assistant</td>
<td>15</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td>60</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE229H1S</td>
<td>Probability and Applications</td>
<td>37</td>
<td>Teaching Assistant</td>
<td>1</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td>60</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE311H1S</td>
<td>Dynamic Systems and Control</td>
<td>105</td>
<td>Teaching Assistant</td>
<td>2</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td>60</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - <a href="https://www.ece.utoronto.ca/undergraduates/ta/">https://www.ece.utoronto.ca/undergraduates/ta/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>St. George</td>
<td>ECE316H1S</td>
<td>Communication Systems</td>
<td>75</td>
<td>Teaching Assistant</td>
<td>2</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter.html">https://portal.engineering.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Applicants must have in-depth knowledge of key concepts in digital and analog communication theory, signals and systems. Operational knowledge of signal generators, oscilloscopes, spectrum analyzers is required.</td>
<td>Duties may include conducting tutorials / laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>St. George</td>
<td>ECE318H1S</td>
<td>Fundamentals of Optics</td>
<td>143</td>
<td>Teaching Assistant</td>
<td>5</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter.html">https://portal.engineering.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Expert knowledge of Geometric Optics: Spherical surfaces, lenses and mirrors, optical imaging systems; matrix method, and aberrations; Polarization: Poincare and polarizations, anisotropic materials, dichroism, birefringence, index ellipsoid, waveplates, optical activity, Faraday effect; Interference: superposition of waves, longitudinal and transverse coherence, Young’s double-slit experiment, Michelson and Fabry-Perot interferometer, thinfilms. Must know Diffraction and Fourier Optics: diffraction theory, single and double slits, diffraction gratings, spatial filtering, basic optical signal processing.</td>
<td>Duties may include conducting tutorials / laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
</tr>
<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>St. George</td>
<td>ECE330H1S</td>
<td>Quantum and Semiconductor Physics</td>
<td>19</td>
<td>Teaching Assistant</td>
<td>1</td>
<td>30</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter.html">https://portal.engineering.utoronto.ca/sites/timetable/winter.html</a></td>
<td>In-depth knowledge required of the following: wave and quantum mechanics; the Schroedinger equation, quantum wells and density of states. Quantum statistics, solid state bonding and crystal structure. Electron gases, dispersion relation inside periodic media, Fermi level and energy bands. Physical understanding of semiconductors at equilibrium, intrinsic and extrinsic semiconductors and excess carriers.</td>
<td>Duties may include conducting tutorials / laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 30 hours</td>
</tr>
<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE334H1S</td>
<td>Digital Electronics</td>
<td>30</td>
<td>Teaching Assistant</td>
<td>3</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter2018.courses/ECE334H1S.decription.html">https://portal.engineering.utoronto.ca/sites/timetable/winter2018.courses/ECE334H1S.decription.html</a></td>
<td>Expertise in digital design techniques for design of integrated circuits, i.e. design of logic gates, design at the transistor level. Duties may include conducting tutorials / laboratory demonstrations and marking tutorial / laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page – <a href="https://www.ece.utoronto.ca/undergraduates/tas/">https://www.ece.utoronto.ca/undergraduates/tas/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
<td></td>
</tr>
<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE344H1S</td>
<td>Digital Electronics</td>
<td>60</td>
<td>Teaching Assistant</td>
<td>1</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter2018.courses/ECE344H1S.decription.html">https://portal.engineering.utoronto.ca/sites/timetable/winter2018.courses/ECE344H1S.decription.html</a></td>
<td>Expertise in design and analysis of algorithms and data structures. Duties may include conducting tutorials / laboratory demonstrations and marking tutorial / laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page – <a href="https://www.ece.utoronto.ca/undergraduates/tas/">https://www.ece.utoronto.ca/undergraduates/tas/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE334H1S</td>
<td>Digital Electronics</td>
<td>124</td>
<td>Teaching Assistant</td>
<td>2</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter2018.courses/ECE334H1S.decription.html">https://portal.engineering.utoronto.ca/sites/timetable/winter2018.courses/ECE334H1S.decription.html</a></td>
<td>Expertise in the area of semiconductors in equilibrium, transport of carriers, p-n diodes, metal-semiconductor contacts, bipolar junction transistors, metal-oxide-semiconductor (MOS) capacitors, and MOS field effect transistors. Duties may include conducting tutorials / laboratory demonstrations and marking tutorial / laboratory work, problem sets, tests and examinations.</td>
<td>October 2, 2018</td>
<td>October 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 30 hours</td>
<td>Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page – <a href="https://www.ece.utoronto.ca/undergraduates/tas/">https://www.ece.utoronto.ca/undergraduates/tas/</a> by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at <a href="mailto:jayne.leake@utoronto.ca">jayne.leake@utoronto.ca</a></td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE333H1S</td>
<td>Systems Software</td>
<td>Teaching Assistant</td>
<td>83</td>
<td>Teaching Assistant</td>
<td>3</td>
<td>Oct. 60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter.html">https://portal.engineering.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Advanced knowledge of operating system structure, processes, threads, synchronization, CPU scheduling, memory management, file systems, input/output, multiple processor systems, virtualization, protection, and security</td>
<td>Duties may include proctoring examinations and marking tutorial/lab work, problem sets, tests and examinations.</td>
<td>Oct. 2, 2018</td>
<td>Oct. 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
</tr>
<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE334H1S</td>
<td>Electronic Circuits</td>
<td>Teaching Assistant</td>
<td>15</td>
<td>Teaching Assistant</td>
<td>1</td>
<td>30</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter.html">https://portal.engineering.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Advanced knowledge of analog and digital electronic circuits, single-stage amplifiers, current mirrors, cascode amplifiers and differential pairs; amplifier frequency response, feedback and stability and Digital CMOS logic circuits.</td>
<td>Duties may include proctoring examinations and marking tutorial/lab work, problem sets, tests and examinations.</td>
<td>Oct. 2, 2018</td>
<td>Oct. 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 30 hours</td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE353H1S</td>
<td>Linear Systems and Control</td>
<td>Teaching Assistant</td>
<td>30</td>
<td>Teaching Assistant</td>
<td>1</td>
<td>60</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter.html">https://portal.engineering.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Expertise in dynamic systems and their control, differential equation models of physical systems using transfer functions and state space models; time domain, root and input response; Stability theory, Principle of feedback, Internal Model Principle, Frequency response, Root Locus, Loop shaping theory. Must know computer aided design using MATLAB and Simulink.</td>
<td>Duties may include proctoring examinations and marking tutorial/lab work, problem sets, tests and examinations.</td>
<td>Oct. 2, 2018</td>
<td>Oct. 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 60 hours</td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>ECE354H1S</td>
<td>Electromagnetic Fields</td>
<td>Teaching Assistant</td>
<td>15</td>
<td>Teaching Assistant</td>
<td>2</td>
<td>30</td>
<td>Jan. 7, 2019 to April 30, 2019</td>
<td><a href="https://portal.engineering.utoronto.ca/sites/timetable/winter.html">https://portal.engineering.utoronto.ca/sites/timetable/winter.html</a></td>
<td>Firm knowledge of transmission line theory, voltage and current waves, characteristic impedance, reflections from the load and source, transients on the line. Smith’s chart, impedance matching. Fundamentals of electromagnetic theory: Maxwell’s equations, Electromagnetic waves, time retarded scalar and vector potentials, gauges, boundary conditions, electric and magnetic fields, wave equations and their solutions in lossless and lossy medium. Plane wave propagation, reflection and transmission at boundaries. Constitutive relations and dispersive radar, shield, dipole and waveguides.</td>
<td>Duties may include proctoring examinations and marking tutorial/lab work, problem sets, tests and examinations.</td>
<td>Oct. 2, 2018</td>
<td>Oct. 26, 2018</td>
<td>$45.33 per hour + 4% vacation pay x 30 hours</td>
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<td>Department of Electrical and Computer Engineering</td>
<td>St. George</td>
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<tr>
<td><strong>ECE358H1S</strong> Foundations of Computing</td>
<td>44 Teaching Assistant</td>
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<td>Applicants must be well versed in the fundamentals of algorithm design and computational complexity, including: analysis of algorithms, graph algorithms, greedy algorithms, divide-and-conquer, dynamic programming, network flow, approximation algorithms, the theory of NP-completeness, and various NP-complete problems.</td>
<td>Duties may include conducting tutorials /laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
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<th>Department of Electrical and Computer Engineering</th>
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<tr>
<td><strong>ECE361H1S</strong> Computer Networks I</td>
<td>169 Teaching Assistant</td>
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<td>Excellent programming skills in Java and C++</td>
<td>Duties may include conducting tutorials /laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
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<td>October 2, 2018</td>
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<td><strong>ECE363H1S</strong> Communication Systems</td>
<td>34 Teaching Assistant</td>
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<td>Strong knowledge of analog and digital communication systems. Analog and digital signals, probability and random processes. Energy and power spectral densities; bandwidth; Distortion theory; analog communication; amplitude, frequency and phase modulation systems; frequency division multiplexing, sampling, quantization and pulse code modulation (PCM); Baseband digital communication; inter-symbol interference (ISI); Nyquist's ISI criterion; eye diagrams. Pseudorandom digital communications; amplitude, phase- and frequency-shift keying; signal constellations. Performance analysis of analog modulation schemes in the presence of noise. Performance analysis of FCM in noise.</td>
<td>Duties may include conducting tutorials /laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
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<tr>
<td>ECE411H1S</td>
<td>Teaching Assistant</td>
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<td>ECE413H1S</td>
<td>Probabilistic Reasoning</td>
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<td>ECE412H1S</td>
<td>Real-Time Computer Control</td>
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<tr>
<td>ECE414H1S</td>
<td>Analog Signal Processing Circuits</td>
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<tr>
<td>ECE415H1S</td>
<td>Energy Systems and Distributed Generation</td>
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<td>Expertise in the analysis and design of systems employing radio waves, covering both the underlying electromagnetics and the overall system performance aspects such as signal-to-noise ratios; Transmission/reception phenomena; Propagation phenomena; receiver design aspects including receiver figures of merit, noise in cascaded systems, noise figures, and noise temperature. Must understand system examples such as fixed wireless access; mobile and personal communication systems; wireless cellular concepts; satellite communications; radar. Duties may include conducting tutorials / laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
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<td>Department of Electrical and Computer Engineering</td>
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<td>Knowledge of CAD tools and design methodology for the development of advanced semiconductor devices and integrated circuits will be introduced in the laboratory environment. These include the simulation of device fabrication, device characteristics, device modeling, circuit layout and design verification. Finally, advanced technology such as GaN HEMTs, graphene devices, carbon nanotube devices, power devices, heterojunctions, HOT and GaAs HBTs. Duties may include conducting tutorials / laboratory demonstrations and marking tutorial/laboratory work, problem sets, tests and examinations.</td>
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*All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrollments.*
| Department of Electrical and Computer Engineering | St. George | ECE1398H5 | VLSI Design Methodology | 20 | Teaching Assistant | 1 | 30 | Jan. 7, 2019 to April 30, 2019 | Requirements are: having taken ECE1388H3F in the past and/or good working knowledge of Cadence CAD tools and familiarity with Synopsys. | Responsibilities include: assistance to students with CAD tools, assistance in labs and tutorials, project grading, and email support. | October 2, 2018 | October 26, 2018 | $45.33 per hour + 4% vacation pay x 30 hours | Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - https://www.ece.utoronto.ca/undergraduates/ta/ by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at jayne.leake@utoronto.ca. All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrolments. |
| Department of Electrical and Computer Engineering | St. George | ECE1395P5 | Power Semiconductor Devices and Applications | 9 | Teaching Assistant | 1 | 30 | Jan. 7, 2019 to April 30, 2019 | The applicant must have in-depth knowledge on power semiconductor device design. Proficiency in using TCAD tools on process and device simulation to analyze power devices is required. | The TA is required to help students to solve technical issues related to the use of the TCAD tools. The TA will also be required to set up office hours to answer technical questions related to the design and optimization of power devices. Responding to students via email will also be necessary. | October 2, 2018 | October 26, 2018 | $45.33 per hour + 4% vacation pay x 30 hours | Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - https://www.ece.utoronto.ca/undergraduates/ta/ by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at jayne.leake@utoronto.ca. All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrolments. |
| Department of Electrical and Computer Engineering | St. George | ECE1512H5 | Digital Image Processing and Applications | 20 | Teaching Assistant | 1 | 30 | Jan. 7, 2019 to April 30, 2019 | Prefer strong background in signal/image processing or computer vision. PhD preferred. | The TA will mark homework assignments, student project proposals, end of term student projects, and student in class presentations. | October 2, 2018 | October 26, 2018 | $45.33 per hour + 4% vacation pay x 30 hours | Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - https://www.ece.utoronto.ca/undergraduates/ta/ by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at jayne.leake@utoronto.ca. All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrolments. |
| Department of Electrical and Computer Engineering | St. George | ECE1755HS | Parallel Computer Architecture and Programming | 25 | 1 | 30 | http://www.ece.utoronto.ca/undergraduates/courses/ECE1755HS | Teaching Assistant | Jan. 7, 2019 to April 30, 2019 | Applicants should have taken ECE 552 or equivalent (Computer Architecture); Knowledge of parallel platforms; Experience with parallel programming (pthreads, MPI, etc.). | The TA will assist the instructor with preparation of homework solutions, grading of homework, end-of-term laboratory and project/exam. | October 2, 2018 | October 26, 2018 | $45.33 per hour + 4% vacation pay x 30 hours | Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - https://www.ece.utoronto.ca/undergraduates/ta/ by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at jayne.leake@utoronto.ca. All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrolments. |
| Department of Electrical and Computer Engineering | St. George | ECE1770HS | Trends in Middleware Systems – Large-scale Data Management | 30 | 1 | 30 | http://www.ece.utoronto.ca/undergraduates/courses/ECE1770HS | Teaching Assistant | Jan. 7, 2019 to April 30, 2019 | Proficient in middleware concepts, internet-scale distributed systems concepts, recent trends in middleware, and socket programming | Assist in homework grading, project grading, organizing student teams, set up and maintain mailing list and online portal, and manage course web resources | October 2, 2018 | October 26, 2018 | $45.33 per hour + 4% vacation pay x 30 hours | Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - https://www.ece.utoronto.ca/undergraduates/ta/ by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at jayne.leake@utoronto.ca. All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrolments. |
| Department of Electrical and Computer Engineering | St. George | ECE1779HS | Introduction to Cloud Computing | 55 | 1 | 30 | http://www.ece.utoronto.ca/undergraduates/courses/ECE1779HS | Teaching Assistant | Jan. 7, 2019 to April 30, 2019 | Java Web programming experience; experience with Amazon Web Services; experience with Google AppEngine | Grade assignments; monitor bulletin board; provide technical support to students | October 2, 2018 | October 26, 2018 | $45.33 per hour + 4% vacation pay x 30 hours | Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - https://www.ece.utoronto.ca/undergraduates/ta/ by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at jayne.leake@utoronto.ca. All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrolments. |
Department of Electrical and Computer Engineering

ECE1373HS Digital Design for Systems-on-Chip
1 Teaching Assistant
17 30
Jan. 7, 2019 to April 30, 2019

Knowledge about high-level synthesis (HLS) for digital hardware. Experience with HLS tools, especially Altera or Xilinx. Hardware design and embedded software for FPGAs.

Supervisor and Admissions: Project group leader (Grade final project; administers and reports).

October 2, 2018

Department of Electrical and Computer Engineering

ECE1353HS Integrated Circuits for Digital Communications
1 Teaching Assistant
15 30
Jan. 7, 2019 to April 30, 2019

A PhD student who has taken ECE1392 is strongly preferred. Priority will be given to applicants who are actively engaged in the research related to this course, which is focused on digital communication systems with emphasis on mobile communication systems.

TA duties will include marking assignments, final project, and final exam.

October 2, 2018

Department of Electrical and Computer Engineering

ECE1543HS Mobile Communication Systems
16 Teaching Assistant
16 30
Jan. 7, 2019 to April 30, 2019

Expertise in the design of mobile communication systems, such as cellular radio, packet radio networks, and indoor wireless networks.

Marking assignments, help students to resolve other duties as per discussion with instructor.

October 2, 2018

Department of Electrical and Computer Engineering

ECE1718HS Special Topics in Computer Hardware Design: Advanced Computer Architecture
15 Teaching Assistant
15 30
Jan. 7, 2019 to April 30, 2019

C++/C programming, Verilog Synthesis, Custom Logic, Grade assignments, Develop/Update Assignments.

October 2, 2018

Department of Electrical and Computer Engineering

ECE1778HS Creative Applications for Mobile Devices
56 Teaching Assistant
66 30
Jan. 7, 2019 to April 30, 2019

TA will need expertise in mobile application development for the Android platform, and breadth expertise on software development for mobile platforms. Experience in iPhones/iosodevelopment is also an asset.

Duties may include answering questions, and answering technical questions that arise, answer student questions on a discussion board, and via email for exercises, serve as a consultant for the creation of the project, mark the assignments and help mark the project. Coordinate the use of the smartphones, and make sure they are up-to-date.

October 2, 2018

Complete the Electrical and Computer Engineering on-line TA application and add teaching/research - instructions and links are posted on the ECE TA web page - https://www.ece.utoronto.ca/un/drgaduates/ta/ by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at jayne.leake@utoronto.ca. All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrolments.
| Department of Electrical and Computer Engineering | St. George | ECE1781HS | Dependable Software Systems | 18 Teaching Assistant | 1 30 | Jan. 7, 2019 to April 30, 2019 | Must have taken ECE1781 or ECE1724. PhD student is preferred. Students who doing research in the area of software systems are preferred. | Parking of project reports. | October 2, 2018 | October 26, 2018 | Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - https://www.ece.utoronto.ca/undergraduates/ta by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at jayne.leake@utoronto.ca. All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrolments. | $45.33 per hour + 4% vacation pay x 30 hours |
| Department of Electrical and Computer Engineering | M. George | ECE1782HS | Programming Massively Parallel Multiprocessors & Heterogeneous Systems | 65 Teaching Assistant | 1 30 | Jan. 7, 2019 to April 30, 2019 | Expertise in CUDA and OpenCL programming. Grade assignments; Develop/Update Assignments. | | October 2, 2018 | October 26, 2018 | Complete the Electrical and Computer Engineering on-line TA application and add teaching resume - instructions and links are posted on the ECE TA web page - https://www.ece.utoronto.ca/undergraduates/ta by October 26, 2018. If during the application and/or selection process you require accommodation due to a disability, please contact Jayne Leake at jayne.leake@utoronto.ca. All graduate course TA hires are subject to final approval by the Associate Chair, Graduate Studies and subject to course enrolments. | $45.33 per hour + 4% vacation pay x 30 hours |