

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

NOTICE RE: PROJECTED GRADUATE ASSISTANT (GA) POSITIONS FOR

FALL TERM 2026

In accordance with Article 13:01 of the [CUPE 4580 collective agreement](#), the Department of Electrical and Computer Engineering invites applications for the following projected GA positions for Fall term 2026.

Projected positions and hours are subject to change and contingent on sufficient enrolment and final budgetary approval.

List of courses that may utilize Graduate Assistants for the Fall 2026 term which will run from September 1st, 2026 – December 31st, 2026:

<u>Course # and course name</u>	<u>Course Description</u>	<u>E = Essential Qualifications</u> <u>P = Preferred Qualifications</u>	<u>Projected # of GAs</u>
GENG 8010: Engineering Mathematics Dr. Saif	The course will cover topics in advanced modern engineering mathematics not addressed in earlier courses and considered to be crucial for more advanced engineering courses at the graduate level. These topics include matrix and numerical analysis, advanced topics in calculus and their application to engineering design problems, and optimization. In particular tools for computer-based system modelling, analysis and engineering design will be addressed. (Open to Masters of Engineering students, excluding students in the MEng Auto Program. Open to engineering MASc/PhD students on permission of the department/faculty as a qualifying course only. Will not count for credit towards MASc/PhD degree.)	E - Strong background in mathematics. Mainly differential equations and linear algebra. P – Previously taken or GA'd the course P - Familiar with Brightspace	1 GA for 140 hours
GENG 8030: Computational Methods and Modeling for Engineering Applications TBA	This course covers the basics of computational analysis for real-world engineering applications. Students will learn the fundamentals of programming and modeling with MATLAB. Topics include: Computational Methods, Model Building, for Engineering Projects, Hardware for Real-time Testing, Data Acquisition from Sensors. Students will complete a real-world project in the areas of their interests.	P – Previously taken or GA'd the course	1 GA for 70 hours
ELEC 2141: Circuit Analysis I Dr. Erfani & Dr. Khalid	Basic components of electric circuits; circuit laws and theorems; circuit analysis techniques; energy-storage elements; transient response of first and second-order circuits. (3 lecture, 3.0 laboratory/tutorial hours a week.) (Credit cannot be obtained for both GENG-2340 and ELEC-2141).	P – Previously taken or GA'd the course	4 GAs for 140 hours
ELEC 2240: Signals and Systems Dr. Sakr	Discrete and Continuous-Time Signals and Systems, Discrete and Continuous-Time Linear Time-Invariant Systems, System Analysis in Time Domain, System Analysis in Frequency Domain, Convolution, Differential Equation Models, Fourier series, the Fourier Transform, the Laplace Transform and its Applications, Sampling of Systems. (Prerequisites: MATH-2780 and MATH-2790) (3 lecture, 1.5 laboratory hours and 1.5 tutorial hours a week.)	E - Strong knowledge of Matlab or Octave. E - Proficiency in frequency-domain analysis tools, such as the Fourier transform P – Previously taken or GA'd the course	4 GAs for 140 hours
ELEC 3000: Engineering Design Dr. Balasingam	This course is based on one or more electrical engineering design projects. It involves designing electrical engineering sub-systems used in real world applications. All the knowledge and skills acquired in the second-year electrical engineering courses will be required to complete the design projects. The students	E – Strong Background in Electrical Engineering P – Working knowledge of AI/L (Artificial Intelligence/Machine Learning) Concepts and tools	4 GAs for 140 hours

	will work in teams of 2 or 3 members to complete the projects. (Prerequisites: completion of all 2nd year electrical engineering courses) (1.5 lecture, 3 laboratory/tutorial hours or equivalent a week.)		
ELEC 3130: Electromechanical Systems Dr. Kar	Machinery principles; transformers; AC machinery fundamentals; synchronous generators; synchronous and induction motors; DC machinery fundamentals; DC motors; electromechanical energy conversion; three-phase concepts; special-purpose motors. (Prerequisites: MATH-2780, MATH-2790, ELEC-2250.) (3 lecture, 2 laboratory hours or equivalent a week.)	P – Previously taken or GA'd the course	4 GAs for 140 hours
ELEC 3160: Electronics II TBA	Analog amplification; small-signal modeling of analog circuits; differential-amplifier topology; BJT, MOSFET and JFET differential amplifiers; frequency response and time-dependent circuit behavior; feedback and stability; multistage and power amplifiers; active filters and oscillators; use of CAD in modern transistor circuit design. (Prerequisites: MATH-2780, MATH-2790 and ELEC-2260.) (3 lecture, 1.5 laboratory hours and 1 hour tutorial.)	E – Must be familiar with the test and measurements of Analog circuits P – Previously taken or GA'd the course	4 GAs for 140 hours
ELEC 3270: Microprocessors TBA	Microprocessor systems (8 and 16 bit) and architecture; data representations, arithmetic units; memory structures; complex instruction set; accumulator, index, and memory reference instructions; addressing modes; stacks, subroutines, and other instructions; interrupts and timing; interfacing I/O devices and data converters; software development systems and assemblers; code implementation on microcontrollers. (Prerequisites: MATH-2780, MATH-2790, ELEC-2170, ELEC-3160 and ELEC-3300.) (3 lecture, 3 laboratory/tutorial hours or equivalent a week.)	P – Previously taken or GA'd the course	3 GAs for 140 hours
ELEC 8210: Digital Signal Processing Dr. Ahmadi	Discrete Signals, discrete system models, z-transforms, Time Domain and Frequency Domain Analysis of Digital Filters, sampling theorem, Design and Realization of FIR and IIR filters, DFT and FFT, Stability and Stabilization of IIR Filters, Design of FIR and IIR Digital Filters Using Non-Linear Optimization Technique, Discrete Hilbert Transform, Sectioned and Fast Convolution, zero padding, digital signal processing applications. Prerequisite: Graduate Student Status. (3 lecture hours a week.)	P – Previously taken or GA'd the course	1 GA for 70 hours
ELEC 8560: Computer Networks Dr. Sakr	This course will cover concepts and protocols which enable heterogeneous computer networks to work with each other, including transport (TCP, UDP), network (IP, IPng), routing (RIP, OSPF), network management (SNMP, SNMPv2, RMON), and other important protocols like ARP, ICMP, DNS, BOOTP, DHCP and HTTP. Advanced topics like Mobile IP, real-time and reservation protocols (RTP, RSVP), IP multicast (IGMP, MBONE) and network security will also be examined. Emphasis will be on broad coverage, as well as hands-on programming experiences. Local area networks, performance of queueing, multiple access schemes, IEEE802 standards, wireless LANs and wireless personal area networks will also be covered. Prerequisite: Graduate Student Status. (3 lecture hours per week.)	P – Previously taken or GA'd the course	1 GA for 140 hours 1 GA for 70 hours
ELEC 8600: Reconfigurable Computing Dr. Khalid	History and evolution of reconfigurable computing (RC) systems; FPGA-based and multi-FPGA systems, CAD mapping tools, run-time reconfiguration, study of recent RC systems from academia and industry targeting a wide range of applications. Literature review and paper presentation on specific topics is also required. The course may require a mix	E -Has a strong background in digital system design, FPGAs and VHDL or Verilog hardware description languages	1 GA for 70 hours

	of project and assignments. Prerequisite: Graduate Student Status. (3 lecture hours per week.)	P – Previously taken or GA'd the course	
ELEC 8900-14: Secure Electronic Commerce Dr. Erfani	Selected advanced topics in a field of research in the Electrical Engineering. (May be repeated more than once for credit if the topics are different.) (3 lecture hours a week.) (Cross-listed with MECH-8290) (May be offered as a cross-career course with ELEC-4190, ELEC-4330, ELEC-4340, ELEC-4350, ELEC-4390, ELEC-4440, ELEC-4470, ELEC-4500 or ELEC-4600, if topics are the same).	P – Previously taken or GA'd the course	1 GA for 70 hours
ELEC 8900-30: Advanced Energy Storage Systems Dr. Balasingam	Selected advanced topics in a field of research in the Electrical Engineering. (May be repeated more than once for credit if the topics are different.) (3 lecture hours a week.) (Cross-listed with MECH-8290) (May be offered as a cross-career course with ELEC-4190, ELEC-4330, ELEC-4340, ELEC-4350, ELEC-4390, ELEC-4440, ELEC-4470, ELEC-4500 or ELEC-4600, if topics are the same).	E - Already taken this course for credit. E - Proficiency with Matlab and Latex. E – Has strong experience in battery management systems research P – Previously taken or GA'd the course	2 GAs for 140 hours
ELEC 8900-93: Modern Control Engineering Dr. Saif	Selected advanced topics in a field of research in the Electrical Engineering. (May be repeated more than once for credit if the topics are different.) (3 lecture hours a week.) (Cross-listed with MECH-8290) (May be offered as a cross-career course with ELEC-4190, ELEC-4330, ELEC-4340, ELEC-4350, ELEC-4390, ELEC-4440, ELEC-4470, ELEC-4500 or ELEC-4600, if topics are the same).	P – Previously taken or GA'd the course P - Strong math Linear Algebra background. P - Proficiency with MATLAB, Undergraduate level course in Classical Control. P - Familiar with Brightspace	1 GA for 70 hours

Refer to the timetable (www.uwindsor.ca/registrar/timetable-information) for class and exam hours and location.

EXPECTED GA DUTIES:

Projected duties are in accordance with article 15:03.

Assistants cannot commence their GA/TA duties until email confirmation of the approval of their Job Offer is received from Human Resources (email titled “Authorization to Commence GA/TA Duties”, article 13:05).

GA employees are expected to make themselves available to report for all assigned duties, **both in-person/on-campus and remote/online duties**. Most classes across the University are held face-to-face on campus, and even online classes may require on-campus face-to-face duties.

ELIGIBILITY REQUIREMENTS:

Successful applicants must be available to attend at the specified time of the course/lab/exams as well as to report for all assigned duties, which may include both in-person/on-campus and remote/online duties.

GA appointments will be offered to qualified applicants in accordance with the CUPE4580 Collective Agreement.

To be eligible for employment as a Graduate Assistant in the term of support you must be a **registered fulltime graduate student**:

- must be registered for the term of work at the time of hiring
- must maintain **fulltime** registration throughout the term and must be in good standing in the degree program
- must be legally eligible to work in Canada on campus with a valid social insurance number. International students must hold a valid study permit and meet all IRCC regulations to accept employment on campus.

GA appointments cannot exceed **140 hours total for the Fall term period (Sept. 1st to Dec. 31st)**. Refer to Articles 13, 14, and 15 of the CUPE 4580 Collective Agreement for eligibility details.

Note: graduate students who have received a Graduate Assistantship Offer (“*An offer of employment as a Graduate Assistant with a commitment of future terms of support under Article 14:01 (a) and (b).*”) **must apply each term** until they have received all terms of support specified under Article 14:01 (a) or 14:01 (b).

Refer to Article 14 of the CUPE 4580 Collective Agreement for details and eligibility. Failure to meet the eligibility conditions in the CUPE 4580 Collective Agreement will result in the forfeiture of the term(s) of support.

Article 14:02: “ Financial support, as outlined in 14:01, shall continue, if the Graduate Assistant:

- a) maintains full-time registration in good standing in the degree program; and
- b) applies for posted positions; and
- c) is satisfactorily performing the duties required.

Failure to meet these eligibility conditions will result in the forfeiture of the term(s) of support.”

REQUIRED ESSENTIAL QUALIFICATIONS:

Successful applicants must meet all essential qualifications identified in the course table.

How to apply:

Application forms are available from the following webpage: [Employment | Electrical and Computer Engineering \(ECE\) \(uwindsor.ca\)](#)

Completed applications must be submitted to: Danielle Gauthier, Graduate Secretary at gradece@uwindsor.ca

For any questions please contact: gradece@uwindsor.ca

Deadline for receiving applications: Monday, July 27th at 8:30am

The university is committed to equity and supports diversity in its teaching, learning, and work environments. In pursuit of the University's Employment Equity Plan, members from the designated groups (Women, Aboriginal Peoples, Visible Minorities, Persons with Disabilities, and Sexual Minorities) are encouraged to apply and to self-identify.

If you need an accommodation for any part of the application and hiring process, please notify the Recruitment & Workforce Coordinator (employment@uwindsor.ca). Should you require further information on accommodation, please visit the website of the Office of Human Rights, Conflict Resolution and Mediation (OHCRM).

Date posted: Monday, July 15th, 2026