The Department of Electrical and Computer Engineering in the Faculty of Engineering and Applied Science at Queen's University requests applications from suitably qualified candidates interested in teaching the following undergraduate course in the 2020-21 session.

**ELEC 390 – Principles of Design and Development W K3.5**  
January 1, 2021 – April 30, 2021

**Qualifications:**

Minimum of a Ph.D. in Electrical & Computer Engineering or a related field, expertise in the field relevant to the course, and appropriate teaching experience. Previous educational background and/or experience must be suited to teaching the course described below. Candidates must have excellent communication and presentation skills, as well as be capable of working as a member of a teaching team. Prior teaching experience in project-based engineering courses and lecture-based engineering courses would be a strong asset. Preference will be given to candidates who are registered as professional engineers in the province of Ontario.

**Teaching requirement:**

Winter Term Course: January 1, 2021 – April 30, 2021  
Anticipated course enrolment: 197

**Course Description**

**ELEC 390 – Principles of Design and Development W K3.5**

The goal of this course is to prepare students for definition, design, management, and development of engineering projects and products, including ELEC49x (the fourth-year capstone design project course). In this course, students will first learn about problem definition and impact analysis from economic standpoint as well as other perspectives. They will then learn different design principles, management techniques, and development methodologies.

Next, students will learn about culture and communication in teams, followed by important concepts in ethics and intellectual property. Students will practice these notions in the context of mini-projects and lab activities.

Additionally, specific software and tools that are available for facilitating these concepts will be introduced and utilized throughout the term.

Finally, students will form groups and formulate a project plan. They will then prepare a proposal document that describes their project including the problem, impact, solution overview, projected costs, risks, milestones, and tentative schedule for the following academic year. The groups will execute their plans in ELEC 49x in the subsequent year (however, students going away on internship must join up to form new groups upon their return).

Course Syllabus can be found at: [https://www.ece.queensu.ca/undergraduate/courses/elec-390.html](https://www.ece.queensu.ca/undergraduate/courses/elec-390.html)
“The successful applicant will have 100 percent responsibility for the course and will be required to convert course materials to an accessible online format **satisfactory to the Department Head**.

**Please be advised that due to the current COVID-19 Situation, the University currently requires all non-essential services staff to work remotely. Until the requirement to work remotely is lifted, you will be required and must be able to work from home, including having a high-speed internet connection.**

Winter term classes begin 11 January 2021.

Queen’s University is committed to employment equity and diversity in the workplace and welcomes applications from women, visible minorities, aboriginal people, persons with disabilities, and persons of any sexual orientation or gender identity. All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority. Academic staff at Queen’s University is governed by a collective agreement between QUFA, [QUFA](https://www.queensu.ca/qua) and Queen’s University.

The University will provide support in its recruitment processes to applicants with disabilities, including accommodation that takes into account an applicant’s accessibility needs. If you require accommodation during the interview process, please contact Mary Gillespie, [mary.gillespie@queensu.ca](mailto:mary.gillespie@queensu.ca).

To comply with Federal laws, the University is obliged to gather statistical information about how many applicants for each job vacancy are Canadian citizens/ permanent residents of Canada. Applicants need not identify their country of origin or citizenship, however, all applications must include one of the following statements: I am a Canadian citizen/permanent resident of Canada; OR, I am not a Canadian citizen/permanent resident of Canada. Applications that do not include this information will be deemed incomplete.

Applications should include a complete and current curriculum vitae, a statement of teaching experience, the names and contact details of two referees who may be contacted, and any relevant other materials the candidate wishes to submit for consideration. Applications can be submitted to the ECE Appointments Committee at the address below, or by email to Mary Gillespie at [mary.gillespie@queensu.ca](mailto:mary.gillespie@queensu.ca). Applications should be received no later than October 31, 2020.

**Electrical and Computer Engineering Appointments Committee**  
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