

Program Review

Electrical Techniques (ETQ)

Electrical Engineering Technician (EE)

Skilled Trades & Technology

Program Coordinator: David Choi

June 24, 2015

| Program Coordinator: | David Choi | School: | Skilled Trades & Technology |
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| **Indicator** 1.0 Industry Trends |
| 1.1 Sectoral Standards and Industry Trends **Review / discuss:**   * New or emergent industry / sector themes or issues that may have a potential impact on program positioning * Industry / sector issues identified by the Program Advisory Committee * Recent labour market data or sector reports * Recent or anticipated changes in occupational standards, level of entry and credential and / or standards of accreditation * Program alignment to labour market and sectoral trends * Trends identified by the Program Advisory Committee * Most Recent Labour Market Trends using new EMSI tool (see below): * [Occupations for ETQ and EE](file:///C:\Users\David%20Choi\Desktop\Library%20Research\EMSI_ETQ_and_EE4546.rtf) (See Attached Sheets) * [Industries for ETQ and EE](file:///C:\Users\David%20Choi\Desktop\Library%20Research\EMSI_Industries_for_EtQ_and_EE7393.rtf) (See Attached Sheets) * [Labour Market Trends for ETQ](file:///C:\Users\David%20Choi\Desktop\Library%20Research\Electrician%202014.docx) - Research conducted by library in July 2014 (See Attached Sheets) * [Labour Market Trends for EE](file:///C:\Users\David%20Choi\Desktop\Library%20Research\Electrical%20Engineering%20Technician%202014c.docx) - Research conducted by library In July 2014 (See Attached Sheets) * Older FDR Data entitled Key Research Findings (2007-2011): [ETQ Data](file:///C:\Users\David%20Choi\Desktop\FDR%20Data\ETQ%20Key%20Research%20Findings_2007-2011.pdf) and [EE Data](file:///C:\Users\David%20Choi\Desktop\FDR%20Data\EE%20Key%20Research%20Findings_2007-2011.pdf)   Electrical is a strong program for the college; however is the weakest in the high schools. There is very little electrical being taught in the high school. Students don’t want to think on their own. They have become accustom to being ‘spoon feed’ in class. Instructors give too much, therefore the student doesn’t get any better, or take initiative.  EE/ETQ have a history of providing community based learning in partnership with many businesses and industries. Our applied learning projects have been a source of community attraction given that our students actually work to assist the community in many major projects.    It was evident early on in the course the students lacked report writing and were low in math skills. Lack of reading and preparation for labs were often the norm. They couldn’t remember basic electronics and required step-by-step instructions on lab assignments. Other observations by faculty consisted of, little computer knowledge ie: excel and some difficulty managing them in a classroom.  “Opportunities for employment in this occupation are expected to be limited over the period from 2009 to 2013. Continued expansion of electrical and electronic products and systems into all areas of industry and manufacturing processes will continue to generate employment opportunities. Manufacturing, business services and utilities account for most of the employment for this occupational group. However, in an economic downturn, employment in manufacturing and business services decline and demand for these professionals falls.”  “In the long term as companies begin to modernize and update manufacturing facilities processes and product designs in order to become more competitive globally, employment opportunities may increase as these initiatives often depend upon the services of electrical and electronics engineering technicians and technologists.”  Employment Growth (2010/2020): **Increase 2%**  o **151,100**(2010) to **154,000**(2020)  In 2010-2011, **17.1%** of graduates in the Electrical Techniques program and **33.5%** of the Electrical Engineering Technician program were employed in a full time position which related to this program of study provincially  **Labour Market**  **Regional & Provincial Employment Potential**  Employment potential for the Muskoka-Kawarthas-Peterborough Area (and all Ontario areas except Toronto) is “N/A’ (Working in Canada).  Toronto Region is the only area in Ontario with assigned data. Toronto Region is ranked Fair (2/3 stars) for Employment Potential in this career.  At the time of the 2006 census, over one-third of Ontario's workers in this occupational group were employed in the Toronto area. Industry sectors with growth prospects include power generation, transmission and distribution, telecommunications and electrical and electronic equipment manufacturing. Employment opportunities will also arise from manufacturing companies needing skilled technicians to modernize and update their facilities to be more competitive. |
| 1.2 Industry Liaison **Review / discuss:**   * **Program initiatives to maintain involvement with the industry / sector such as field placement supervisions, clinical, faculty renewal, professional learning, other professional affiliations, or community-based projects** * The hands on aspects of the first year are geared to Safe Work Practices in the Electrical Industry and prepare the graduate to take responsibility for his/her own safety primarily and awareness for their co-workers. The two semesters provide the foundational skills necessary to continue, if the student chooses, in the proposed Electrical Technician program. This second year focuses on theory and practical application of the skills learned in the program and prepares the graduate for greater employment opportunities in the Electrical Industry. Students who graduated from Fleming have the opportunities to work at GE (General Electric), Petersburg Hospital Electrical Facilities…etc.   **Common Job Titles**   * communications technologist * electrical engineering technician * electrical engineering technologist * electricity distribution network technologist * electronics design technologist * electronics engineering technician * electronics engineering technologist * electronics manufacturing technician * electronics manufacturing technologist * lighting technologist * metering technologist * microwave maintenance technician * production support technician – electronics manufacturing   **Typical Employers**   * manufacturing plants * offices * power and other utility facilities |
| 2.0 Curriculum Development and Framework |
| 2.1 Curriculum Framework   **Review / discuss:**   * **Describe how your program demonstrates a learner centered approach and addresses our core promise to students concerning personalized learning and support.** * CURRICULUM CHANGES FOR FUTURE OFFERINGS   Upon the review of the existing course it was agreed there should be some modifications to the curriculum. Faculty were concerned by the lack of math skills of the students and suggested more math be presented in the first semester. It was also recommended perhaps a review with a math faculty to design a course more specific to electrical theory. Labs seemed to present problems for the students, as there wasn’t enough time to complete the assignment. Faculty agreed to re-design and standardize the labs, which will enable the student to complete the projects. Committee members recommended a presentation on the first day of class from a group of trades’ people detailing the expectations of the trade  Lots of applied learning time (in labs); lots of group work and group driven projects and assns..   * Workload 3rd Semester:   The workload of 8 subjects was overwhelming to the point that some will have incompletes.  There needs to be a renationalization of work load, over the term.   * 1. COMP 460 : Should be 60 Hours (Currently 45 Hours)   2. ELCT 95: Should be 60 Hours (Currently 75 Hours) * Current EE: 1440 Hours but change to 1365 Hours |
| 2.2 Outcomes from Curriculum Renewal **Review / discuss:**   * **Key outcomes from the Curriculum Renewal processes of the past few years** * **Progress to date in implementing the recommendations arising from Curriculum Renewal** * **Success of the changes implemented and the means by which they are being evaluated**   Recap of curriculum changes over past 5 years:   * ORGB16 “Strategies for Workplace Success” created to address need of group; consolidated “Teams” and Career Essentials” ORGB courses * MATH18 and MATH37 now replaced with MATH122, MATH123, and MATH124 * Brought in Measurements several years ago   Note: Meeting in Oct 2012 captured gaps in meeting various elements of performance: [Access the meeting minutes here](file:///C:\Users\David%20Choi\CurriculumRenewal\Electrical%20Engineering%20Tech%20Minutes%20-%20Oct.%2025,%202012.doc) |
| 2.3 Curriculum Sequencing and Alignment with Standards **Review / discuss:**   * **The Ontario College Credentials Framework and the extent to which the program aligns with the provincial standards.** * **The program’s current admission requirements and their suitability in relation to program rigour and student preparedness** * **The extent to which course content, levels of learning, and assessment methodology are successfully sequenced and aligned between courses and across semesters** * The ETQ and EE programs both align with provincial standards. ETQ is an Ontario College Certificate with 765 hours of instruction (14/15); EE is a diploma program with 1440 hours of instruction. * Noted in May 11th, 2015 meeting that students come underprepared in Math. Current admission requirements are one Gr. 11 or 12 College-level math. No other admission requirements besides an OSSD. * See current [program information for ETQ](file:///C:\Users\Electrical%20Techniques-ETQ\Program%20Synopsis\electrical-techniques_WEB.pdf) and [program information for EE](file:///C:\Users\David%20Choi\EE_WEB.pdf) (from Fleming web descriptions). |
| 2.4 a) Curriculum Map  * **Review the Program Curriculum Map and discuss the extent to which there is alignment of vocational and course outcomes** * **Review / discuss the distribution and progression of Vocational Learning Outcomes, Essential Employability Skills, and General Education themes across the curriculum.**      * Maps updated for CURRENT 204/15 ETQ and EE curriculum * [Current ETQ curriculum map](file:///C:\Users\David%20Choi\Program%20Curriculum%20Map\Updated%20ETQ%20Curriculum%20Map%20-%20Sept2014.xlsx) (See Attached Sheet) * [Current EE Curriculum map](file:///C:\Users\David%20Choi\Program%20Curriculum%20Map\Updated%20EE%20Curriculum%20Map%20-%20Sept2014.xlsx) (See Attached Sheet) |
| 2.4 b) Curriculum Map **Submit an updated curriculum map as an attachment to the Program Review Report**  (Please see Attached Sheets) |
| 2.5 Delivery Mode **Review / discuss:**   * **The primary modes used to deliver curriculum such as lecture, seminar, lab, applied project, field camp and web based courses** * **The rationale for, and appropriateness of, these delivery modes in relation to program learning outcomes** * **The degree and depth to which the program is providing work integrated learning experiences** * **The degree and depth to which the learning experiences are enhanced by the use of educational technology.** * Lecture, seminar, and predominately labs are delivery modes * Currently no applied projects, placements, or co-op * Currently no consistent use of D2L or other educational technology by the program team * Starting Fall 2015, Consistent use of New D2L formats such as Week1 (Lecture & Lab), Week 2 (Lecture & Lab) etc * Lots of electronic equipment such as Lab-Volt, PLC, 3D Printer …etc used in labs |
| 2.6 Assessment and Evaluation Methods **Review / discuss:**   * **The program approach to learning assessment** * **The balance and frequency of assessment types across the curriculum and their appropriateness to course / vocational outcomes** * **Reflect and comment upon the variety of methods used to demonstrate outcomes. Are learner centered principles part of the assessment approaches?** * As of 2014/15 – the program team agreed upon common weighting criteria for lab courses   Assessments are 40% labs and 60% tests   1. Grading Summary: 2. *Labs*: 40% towards your final course grade 3. *Lecture* (Term Tests, Quizzes, and Assignments): 60% towards your final course grade 4. Lab Policy:    1. Labs/Assignments that are past due (after handing out back all labs/assignments to students) *with no prior discussion/negotiation* *with the Professor/Instructor will be assigned a grade of zero (0) and will not be accepted.*    2. Lab attendance is mandatory. Each lab is a learning module and generally cannot be made up at a later date. *Unless prior arrangements are made with your professor,* missed labs will receive a grade of zero (including lab tests). Any accommodations for a missed lab experiment will be considered on an individual, case by case basis. Students absent from (3) or more class may be assigned an automatic failing course grade. 5. Testing Policy:    1. The following items are NOT allowed: Cellphones, iPads, or any electronic devices    2. Professors, Instructors and Invigilators are authorized to inspect all equipment and materials used inside a testing facility.    3. No conversation is allowed once students are seated in the test room. When the test is in progress no communication of any sort between students will be allowed in the test room.    4. If a term test is missed, the student will receive a mark of zero (0) for that test. A student who misses a test/exam due to extenuating circumstances must submit details with evidence in writing to the professor/coordinator of the course *within 3 business days of the test date.*  Independent documentation will be required and submitted to the Dean/Delegate for approval. Only truly extenuating circumstances will be considered. The student will receive a reply from the Coordinator. |
| 2.7 Curriculum and Diversity **Review / discuss:**   * **Program strategies that support student diversity and promote understanding of diversity, including program culture / climate, curriculum content and approaches to teaching and learning** * Program coordinator may want to work with AO to select a variety of GenEds that touch upon this area (e.g. Indigenous Culture, Intro to Psych, etc.). |
| 2.8 Learning Pathways **Review / discuss:**   * **Recent or anticipated initiatives that promote student pathways including high school articulations, dual credit, program laddering, dual diplomas, and university transfer, articulations, and partnerships** * No current dual credit offerings (core ETQ or EE courses) * Dual diploma currently offered to/from EE and INT: “   From EE web description: “Upon graduation from Electrical Engineering Technician:  With just 8 additional courses you can complete a second diploma at Fleming in the Instrumentation and Control Engineering Technician program and graduate with 2 diplomas in 3 years”   * Potential university pathway partner : **UOIT (University of Ontario Institute of Technology)**   Contact Person: Dr. MIKAEL EKLUND, Program Director for Electrical and Software Engineering  Address: 2000 Simcoe Street North. Oshawa, ON, Canada. [mikael.eklund@uoit.ca](mailto:mikael.eklund@uoit.ca)  After completion of 2nd year of EE, possible to transfer to 3rd year Electrical Engineering at UOIT   * Potential Co-op opportunity: **Peterbough Regional Hospital, Electrical Maintenance Department** |
| 3.0 Student and Graduate Satisfaction |
| 3.1 Formal Measures of Student and / or Graduate Satisfaction **Review / discuss:**   * **Key Performance Indicator results for the program with a focus on #s 4, 8, 9, and 11** * **Program status and positioning in relation to the KPIs of other programs of a similar type (where applicable)** * **Feedback and summary report from Learning Support Services (LSS) summary** * **Themes or issues emerging from a review of course evaluation summaries (Chair/Dean response here)** * **ETQ: Key Performance Indicator results - #s 4, 8, 9, and 11:** Refer to [KPI Review of Programs (ETQ)](file:///C:\Users\Electrical%20Techniques-ETQ\Program%20Review\2014-15%20Program%20Review\ETQ_KPI%20ProgramReview_2011-2015.xlsx) for KPI data from 2011-2015. This data compares the ETQ program to the MCU and college. * KPI4: From 2011-2014, Fleming scored lower than both the college and MCU in ETQ graduate satisfaction with generic and vocational learning outcomes. In 2015, however, we actually scored higher than both the MCU and college averages. * KPI8: Student satisfaction with the learning experiences continues to be significantly lower than both the MCU and college averages over this time frame. * KPI9: The data for student satisfaction with teachers is also significantly lower than that of other colleges offering an ETQ program and the college average. * KPI11: Graduate satisfaction with the ETQ program has varied from 2011-2015, but overall we are again below the MCU and college averages. The 2015 data for the 2013/14 academic year, however, is closer to the comparators than the previous two reporting years. * **Fleming’s KPIs for ETQ compared to other ETQ programs:** Results are varied but overall shows that we are underperforming compared to the MCU ETQ averages. Refer to [ETQ\_KPI details (2010-2014)](file:///C:\Users\David%20Choi\Desktop\FDR%20Data\ETQ_KPI%20details_2010-14.pdf) for additional information and data. * EE: **Key Performance Indicator results - #s 4, 8, 9, and 11:** Refer to [KPI Review of Programs (EE)](file:///C:\Users\David%20Choi\Desktop\FDR%20Data\EE_KPI%20ProgramReview_2011-2015.xlsx) for KPI data from 2011-2015. This data compares the EE program to the MCU and college. * KPI4: From 2011-2015, there has been a gradual decline in Fleming EE graduate satisfaction with generic and vocational learning outcomes. We are well below the MCU and college averages in this category. * KPI8: EE Student satisfaction with the learning experiences continues to be significantly lower than both the MCU and college averages over this time frame. * KPI9: The data for student satisfaction with teachers is also significantly lower than that of other colleges offering an EE program and the college average. * KPI11: Graduate satisfaction with the EE program has varied from 2011-2015 but we are consistently below the MCU and college averages. * **Fleming’s KPIs for EE compared to other EE programs:** Results are varied but overall shows that we are underperforming compared to the MCU ETQ averages. Refer to [EE KPI details (2010-2014)](file:///C:\Users\David%20Choi\Desktop\FDR%20Data\EE_KPI%20details_2010-14.pdf) for additional information and data. * **Tutoring Summary Report for 2014/15**: There were several requests for tutors from the Learning Centre for both ETQ and EE core courses. For ETQ (SEM1 and SEM2 ETQ and EE), 14 requests were for ELCT84, 9 requests for ELCT90, 3 requests for ELCT87, and 2 requests each for ELCT101 and MATH122. * For EE core courses (EE only for SEM3 and SEM4) there were 16 requests for COMP460, 15 requests for ELCT117, 10 for ELCT94, 6 for ELCT95, 5 for ELCT88, and 1 request each for COMM32, ELCT 77, 105, and 109. * Please refer to the [tutoring services statistics](file:///C:\Users\David%20Choi\Desktop\Tutoring%20Services%20Stats_2015.xlsx) for any additional details.   **<Max/other to compile Themes or issues emerging from a review of course evaluation summaries (Chair/Dean response here)>** |
| 3.2 Other Measures of Student and Graduate Satisfaction **Review / discuss outcomes from:**   * **Student focus groups (mandatory component)** * **Student Advisor observations / reports** * **Formal or informal discussions with students and graduates such as class councils, class representatives, individuals or delegations** * **Debriefing sessions following a field placement, clinical placement, or practicum** * Please review [EE Student Focus Group Feedback](file:///C:\Users\David%20Choi\Desktop\EE%20Focus%20Group%20Fall%202014\EE%20Focus%20Group%20Feedback%20-%20Nov%2026_2014.pdf) from SEM2 cohort (Fall 2014). (See Attached Sheets) * Also review [2011 focus group feedback for ETQ/EE](file:///C:\Users\David%20Choi\Desktop\EE%20Focus%20Group%20Fall%202014\2001_EET%20Focus%20Group%20Summary.docx) * Semester 3 seems to be very heavy load so that many students can not complete their all assignments. |
| 4.0 Employment Trends |
| 4.1 Employment **Review / discuss:**   * **Graduate employment statistics over the last few years, including those of students employed in the field, in a related field, outside the field, or unemployed, and any emerging patterns in this data** * **Student preparedness for entry-level positions** * **Emergent employment trends such as new types of positions, changing job market, regional distinctions, changing employer profile, or emerging skill shortages** |
| 4.2 Other Graduate Destinations **Review / discuss:**   * **Alternative graduate destinations such as further education, international opportunities, volunteer service, or other experiences** * Some of them back to school to take ‘Control & Instrumentation’ program to obtain 2nd diploma and others try to establish own engineering firm. |
| 5.0 Strategic Positioning |
| 5.1 College Alignment **Review / discuss:**   * **Program alignment with college priorities such as vision, mission, values, strategic plan, academic framework, and the educational mandate, and / or academic priorities of the School** * **Opportunities for new program initiatives based on Program, School, or community strengths and alliances**  Vision  * Students succeeding through personalized learning. Innovation and achievement powered by people.  Mission  * Fleming champions personal and career success through applied learning. We contribute to community success and sustainability through programs, services and applied research.  Values  * The student learning experience is our first priority * We value people and community * EE/ETQ is committed to a sustainable future * We are inspired by Sir Sandford Fleming to innovate with vision and implement with excellence * Our programs (EE/ETQ) ensure that we applied learning experience stands out, so that graduates are ready to make a difference in the workplace. * Improve and increase pathways to facilitate access and ensure that graduates can pursue career alternatives and further educational opportunities. * Gap in community relationships and work-integrated learning in ETQ/EE * No current PAC for ETQ/EE   <Dean/Chair to comment on alignment of programs with academic priorities of STT>l |
| 5.2 Competitor Programs **Review / discuss:**   * **Key parallels and differences between this program and those of its closest competitors, where applicable** * **’Value-added’ program distinctions and their attractiveness to prospective students**  |  |  |  | | --- | --- | --- | |  | Fleming EE/ETQ | Competitors | | Co-Op Program | No | Yes | | University Transfer Program | No | Yes | | Safety Certificate | Yes | No | | Dual Diploma | Yes | No | | CODA Program | No | Some of them |  * Refer to the [Library Research on ETQ/EE Programs Competitors](file:///C:\Users\David%20Choi\Desktop\Library%20Research\2015%20Electrical%20Engineering%20Competitors.docx) (completed Spring 2015) for more information. (See Attached Sheets) * One unique “value-added” distinction is the dual diploma offering between EE and INT. |
| 6.0 Enrolment Trends |
| 6.1 Demand for the Program **Review / discuss:**   * **Patterns in the number of program applicants, qualified applicants, and actual registrants over the past 6 years** * **Changes, if any, in the student demographic profile, including level of maturity, diversity, prior knowledge, technological literacy, work experience, and expectations** * **Impact, if any, of this changing student profile on program curriculum** * Refer to [enrolment data for ETQ](file:///C:\Users\David%20Choi\Desktop\FDR%20Data\ETQ%20Enrolment_PR2015.xlsx)  |  |  |  |  | | --- | --- | --- | --- | | **Fleming Program:** | Total for.. |  |  | | Row Labels | ALL SEM | Semester 1 | UPPER SEM | | Electrical Techniques | 506 | 494 | 14 | | 2007/08 | 57 | 57 |  | | Fall 2007 | 57 | 57 |  | | 2008/09 | 125 | 125 |  | | Fall 2008 | 125 | 125 |  | | 2009/10 | 109 | 99 | 10 | | Fall 2009 | 109 | 99 | 10 | | 2010/11 | 58 | 56 | 2 | | Fall 2010 | 58 | 56 | 2 | | 2011/12 | 44 | 44 | 2 | | Fall 2011 | 44 | 44 | 2 | | 2012/13 | 46 | 46 |  | | Fall 2012 | 46 | 46 |  | | 2013/14 | 31 | 31 |  | | Fall 2013 | 31 | 31 |  | | 2014/15 | 36 | 36 |  | | Fall 2014 | 36 | 36 |  |  * Refer to [enrolment data for EE](file:///C:\Users\David%20Choi\Desktop\FDR%20Data\EE%20Enrolment_PR2015.xlsx)  |  |  |  |  | | --- | --- | --- | --- | | **Fleming Program:** | Total for.. |  |  | | Row Labels | ALL SEM | Semester 1 | UPPER SEM | | Electrical Engineering Technician | 907 | 522 | 398 | | 2009/10 | 172 | 117 | 55 | | Fall 2009 | 172 | 117 | 55 | | 2010/11 | 165 | 82 | 83 | | Fall 2010 | 165 | 82 | 83 | | 2011/12 | 129 | 73 | 69 | | Fall 2011 | 129 | 73 | 69 | | 2012/13 | 142 | 69 | 73 | | Fall 2012 | 142 | 69 | 73 | | 2013/14 | 145 | 80 | 65 | | Fall 2013 | 145 | 80 | 65 | | 2014/15 | 154 | 101 | 53 | | Fall 2014 | 154 | 101 | 53 | |  |  |  |  |  * Program team input to complete section on student demographic profile, including level of maturity, diversity, prior knowledge, technological literacy, work experience, and expectations * We have many local students and only few international students in our program. Most of international students from India and they are very strong theoretical knowledge but lack of hands-on job. * Enrollment increase and many have decided to comeback to the January intake. * We have mix with level of maturity and many are second career.   The following information consists of OCAS yearly student fall registration data as well as a mean growth rate and average student registration for each program under these categories:  **Certificate**   Ten colleges offer this program, including one of Fleming’s main competitors   Fleming has a **6%** mean growth rate, higher than the system rate of **3.9%**   Sheridan, the key competitor, has a high mean growth rate of **13%**   Overall, St. Clair has the highest mean growth rate **(29%)** and Loyalist has the lowest rate **(-25%)**   Sheridan has the highest average registration with **134 students** and Loyalist the lowest with **19 students**  **Diploma**   Sixteen colleges offer this program, including two of Fleming’s main competitors   Fleming has a **-14%** mean growth rate, much lower than the system rate of **26.5%**   Out of the key competitors, Georgian has a highest mean growth rate of **24%** and Durham has the lowest **(8%)**   Overall, Conestoga has the highest mean growth rate **(179%)** and Fleming has the lowest rate   Out of the key competitors, Georgian has the highest average registration with **76 students** and Durham  the lowest with **63 students**   Overall, Algonquin has the highest average registration with **173 students** and Cambrian the lowest with **3 students**  **Advanced Diploma**   Eleven colleges offer this program, including one of Fleming’s main competitors   Overall, Cambrian has the highest mean growth rate **(17%)** and Conestoga has the lowest mean growth rate **(-3%)**   Mohawk has the highest average registration with **131 students** and Cambrian and Sault have the lowest with  **1 student** |
| 6.2 Student Progression **Review / discuss:**   * **Patterns of student success and retention on a semester by semester basis over the last six years** * **The effectiveness of any strategies adopted to improve student success and retention** * **ETQ Retention**: From 2009-2013, there has been a 64% retention rate for ETQ from SEM1 to SEM2 and a retention rate of 65 % within the college. The 3 year average from 2011-2013 is lower with 55% returned to SEM 2 and 56% retained within the college. * **EE Retention**: From 2009-2013, there has been a 67% retention rate for EE from SEM1 to SEM2 and a retention rate of 71 % within the college. The 3 year average from 2011-2013 is similar with 68% returned to SEM 2 and 71% retained within the college. * Refer to the [2014 FDR report on retention](file:///C:\Users\David%20Choi\Desktop\FDR%20Data\RetentionReportW14.pdf) for any additional details. |
| 7.0 External Relations |
| 7.1 Alumnae **Review / discuss:**   * **The type and range of alumnae involvement in the program** * **Current and future strategies to engage alumnae in the program** * Work in partnership with our communities to contribute measurably to economic and community development. These plans include emphasis on sectors such as hospitality and tourism, health and wellness, the arts, water management, and construction and manufacturing. * Fully realize the vision of the Kawartha Skilled Trades Institute to address immediate and long-term needs and opportunities. * Improve access and availability of educational opportunities in rural and remote areas |
| 7.2 Community Relations   **Review / discuss:**   * **Significant partnerships, relationships, connections, or offers of support from the community that help to enrich the program and the student experience** * **Faculty, staff, and student involvement in volunteer projects and events** * **Contributions to the not for profit sector such as committee or board service by program-associated faculty and staff** * **Community recognition in the form of student bursaries, awards and scholarships** * Previous Members of the Program Advisory Committee are strongly endorsing EE/ETQ programs. They have reinforced the growth of the industry and have cited numerous trends and developments in the field that confirm the need for trained graduates in this area of professional practice. Advisory members represent several areas in the industry including electricians, electrical contracting companies, electrical suppliers, electrical manufacturing control and instrumentation companies, and secondary schools. |
| 7.3 Program Advisory Committee **Review / discuss:**   * **The distribution of Committee membership by constituency, sector, and / or region** * **The vitality of the Committee such as the frequency of meetings, and members’ level of participation, engagement, and turnover** * **The extent to which Committee operations are aligned with the Fleming College Advisory Committee Orientation Manual and Advisory Committee policy.** * PAC meeting – TBA ; will be scheduled soon |
| 8.0 Program Resources |
| 8.1 Human Resources **Review / discuss:**   * **The number and distribution of all faculty, technicians, and technologists associated with the program including full-time, part-time, sessional, and cross-appointments** * **Profile of the Dean, faculty, and staff associated with the program including cumulative credentials, scholarship, work-related and teaching experience, and expertise in education** * **Significant faculty or staff accomplishments such as professional recognition and awards, achievement of credentials, and appointments** * **Contributions to the professional community or industry by program-associated faculty and staff including board / committee service, research, and presentations / publications** * **Current staffing levels for the program in relation to program numbers, curriculum, delivery modes and areas of specialization / generalization** * **Hiring priorities over the next few years based on the above** * **Current professional development and renewal plans in relation to program or student needs**   <contacted Max/Patti-Lynn to collect/compile>   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **TOTAL ALL STAFF** | | | | | | | | | | | | | | | | | | | | | | | | | | **FOR THE PERIOD OF** | | | | | **2014-2015** | | | | | **2013-2014** | | | | | **2012-2013** | | | | | **2011-2012** | | | **2010-2011** | | | **COLLEGE** | **male** | | **female** | | **total** | | **male** | | **female** | | **total** | | **male** | | **female** | | **total** | | **male** | **female** | **total** | **male** | **female** | **total** | | **ALGONQUIN** | 581 | | 660 | | 1241 | | 570 | | 663 | | 1233 | | 572 | | 647 | | 1219 | | 536 | 646 | 1182 | 526 | 625 | 1151 | | **BORÉAL** | 113 | | 245 | | 358 | | 112 | | 232 | | 344 | | 114 | | 242 | | 356 | | 114 | 243 | 357 | 109 | 222 | 331 | | **CAMBRIAN** | 183 | | 241 | | 424 | | 186 | | 240 | | 426 | | 179 | | 234 | | 413 | | 183 | 241 | 424 | 190 | 254 | 444 | | **CANADORE** | 140 | | 148 | | 288 | | 139 | | 151 | | 290 | | 154 | | 141 | | 295 | | 168 | 163 | 331 | 178 | 181 | 359 | | **CENTENNIAL** | 414 | | 549 | | 963 | | 396 | | 559 | | 955 | | 389 | | 555 | | 944 | | 392 | 520 | 912 | 386 | 475 | 861 | | **CONESTOGA** | 438 | | 541 | | 979 | | 429 | | 532 | | 961 | | 416 | | 501 | | 917 | | 395 | 478 | 873 | 404 | 493 | 897 | | **CONFEDERATION** | 165 | | 246 | | 411 | | 164 | | 246 | | 410 | | 166 | | 245 | | 411 | | 173 | 255 | 428 | 168 | 240 | 408 | | **DURHAM** | 305 | | 460 | | 765 | | 304 | | 449 | | 753 | | 286 | | 432 | | 718 | | 289 | 425 | 714 | 286 | 415 | 701 | | **FANSHAWE** | 518 | | 677 | | 1195 | | 493 | | 663 | | 1156 | | 486 | | 652 | | 1138 | | 477 | 625 | 1102 | 443 | 570 | 1013 | | **GEORGE BROWN** | 528 | | 787 | | 1315 | | 526 | | 772 | | 1298 | | 514 | | 751 | | 1265 | | 489 | 712 | 1201 | 483 | 730 | 1213 | | **GEORGIAN** | 263 | | 483 | | 746 | | 264 | | 475 | | 739 | | 284 | | 477 | | 761 | | 283 | 501 | 784 | 252 | 475 | 727 | | **HUMBER** | 622 | | 879 | | 1501 | | 598 | | 844 | | 1442 | | 581 | | 811 | | 1392 | | 555 | 778 | 1333 | 532 | 735 | 1267 | | **LA CITÉ** | 188 | | 242 | | 430 | | 196 | | 241 | | 437 | | 186 | | 238 | | 424 | | 187 | 243 | 430 | 187 | 231 | 418 | | **LAMBTON** | 115 | | 201 | | 316 | | 113 | | 199 | | 312 | | 109 | | 194 | | 303 | | 103 | 192 | 295 | 105 | 178 | 283 | | **LOYALIST** | 136 | | 192 | | 328 | | 144 | | 204 | | 348 | | 147 | | 203 | | 350 | | 153 | 201 | 354 | 141 | 195 | 336 | | **MOHAWK** | 370 | | 542 | | 912 | | 373 | | 567 | | 940 | | 352 | | 544 | | 896 | | 342 | 538 | 880 | 328 | 553 | 881 | | **NIAGARA** | 280 | | 369 | | 649 | | 282 | | 343 | | 625 | | 264 | | 342 | | 606 | | 263 | 346 | 609 | 255 | 333 | 588 | | **NORTHERN** | 78 | | 162 | | 240 | | 79 | | 168 | | 247 | | 81 | | 170 | | 251 | | 78 | 163 | 241 | 78 | 159 | 237 | | **ST. CLAIR** | 243 | | 313 | | 556 | | 235 | | 292 | | 527 | | 244 | | 300 | | 544 | | 248 | 311 | 559 | 243 | 298 | 541 | | **ST. LAWRENCE** | 162 | | 330 | | 492 | | 156 | | 312 | | 468 | | 155 | | 289 | | 444 | | 141 | 274 | 415 | 138 | 273 | 411 | | **SAULT** | 135 | | 174 | | 309 | | 134 | | 192 | | 326 | | 143 | | 184 | | 327 | | 130 | 193 | 323 | 138 | 190 | 328 | | **SENECA** | 631 | | 833 | | 1464 | | 623 | | 841 | | 1464 | | 597 | | 833 | | 1430 | | 582 | 825 | 1407 | 595 | 803 | 1398 | | **SHERIDAN** | 537 | | 753 | | 1290 | | 516 | | 724 | | 1240 | | 490 | | 680 | | 1170 | | 470 | 631 | 1101 | 423 | 589 | 1012 | | **SIR SANDFORD FLEMING** | 202 | | 312 | | 514 | | 190 | | 300 | | 490 | | 187 | | 290 | | 477 | | 182 | 288 | 470 | 183 | 280 | 463 | | **TOTAL** | | 7347 | | 10339 | | 17686 | | 7222 | | 10209 | | 17431 | | 7096 | | 9955 | | 17051 | | 6933 | 9792 | 16725 | 6771 | 9497 | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **ACADEMIC EMPLOYEES** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **BY CLASSIFICATION** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | FOR THE PERIOD OF | | | | | **2014-15** | | | | | **2013-14** | | | | | **2012-13** | | | | | **2011-12 \*** | | | | | **2010-11** | | | | | | **COLLEGE** | **Prof** | **Couns** | **Lib** | **Instr** | | **total** | **Prof** | **Couns** | **Lib** | | **Instr** | **total** | **Prof** | **Couns** | **Lib** | **Instr** | **total** | **Prof** | **Couns** | | **Lib** | **Instr** | **total** | **Prof** | | **Couns** | **Lib** | **Instr** | **total** | | **ALGONQUIN** | 524 | 15 | 3 | 16 | | 558 | 513 | 16 | 3 | | 17 | 549 | 522 | 15 | 3 | 15 | 555 | 516 | 14 | | 3 | 9 | 542 | 489 | | 13 | 1 | 10 | 513 | | **BORÉAL** | 97 | 3 | 0 | 0 | | 100 | 100 | 4 | 0 | | 0 | 104 | 108 | 3 | 0 | 0 | 111 | 105 | 5 | | 0 | 0 | 110 | 101 | | 4 | 0 | 0 | 105 | | **CAMBRIAN** | 177 | 2 | 1 | 2 | | 182 | 177 | 1 | 1 | | 2 | 181 | 178 | 1 | 1 | 2 | 182 | 189 | 2 | | 1 | 2 | 194 | 193 | | 4 | 1 | 1 | 199 | | **CANADORE** | 119 | 2 | 0 | 0 | | 121 | 122 | 2 | 0 | | 0 | 124 | 125 | 2 | 0 | 0 | 127 | 143 | 6 | | 0 | 0 | 149 | 160 | | 8 | 0 | 0 | 168 | | **CENTENNIAL** | 400 | 11 | 6 | 0 | | 417 | 403 | 13 | 7 | | 0 | 423 | 406 | 13 | 4 | 0 | 423 | 406 | 12 | | 6 | 0 | 424 | 399 | | 12 | 6 | 0 | 417 | | **CONESTOGA** | 424 | 12 | 0 | 6 | | 442 | 422 | 12 | 0 | | 6 | 440 | 414 | 12 | 0 | 6 | 432 | 391 | 11 | | 0 | 6 | 408 | 436 | | 12 | 0 | 0 | 448 | | **CONFEDERATION** | 145 | 4 | 0 | 0 | | 149 | 151 | 4 | 0 | | 0 | 155 | 143 | 6 | 0 | 0 | 149 | 159 | 3 | | 0 | 0 | 162 | 153 | | 5 | 0 | 0 | 158 | | **DURHAM** | 306 | 4 | 2 | 1 | | 313 | 302 | 6 | 3 | | 2 | 313 | 279 | 6 | 3 | 0 | 288 | 284 | 6 | | 3 | 2 | 295 | 266 | | 6 | 4 | 1 | 277 | | **FANSHAWE** | 505 | 17 | 3 | 0 | | 525 | 497 | 17 | 2 | | 0 | 516 | 485 | 17 | 3 | **0** | 505 | 462 | 17 | | 3 | 0 | 482 | 419 | | 15 | 2 | 0 | 436 | | **GEORGE BROWN** | 471 | 32 | 7 | 2 | | 512 | 462 | 35 | 8 | | 2 | 507 | 454 | 34 | 6 | 7 | 501 | 449 | 33 | | 7 | 5 | 494 | 460 | | 33 | 7 | 2 | 502 | | **GEORGIAN** | 239 | 15 | 6 | 0 | | 260 | 244 | 16 | 6 | | 0 | 266 | 268 | 15 | 7 | 0 | 290 | 281 | 13 | | 6 | 0 | 300 | 256 | | 13 | 6 | 0 | 275 | | **HUMBER** | 564 | 19 | 7 | 0 | | 590 | 546 | 19 | 7 | | 0 | 572 | 535 | 19 | 7 | 0 | 561 | 514 | 18 | | 7 | 0 | 539 | 500 | | 17 | 7 | 0 | 524 | | **LA CITÉ** | 197 | 11 | 1 | 0 | | 209 | 205 | 11 | 1 | | 0 | 217 | 200 | 11 | 1 | 0 | 212 | 203 | 10 | | 1 | 0 | 214 | 197 | | 10 | 1 | 0 | 208 | | **LAMBTON** | 124 | 5 | 0 | 0 | | 129 | 126 | 5 | 0 | | 0 | 131 | 123 | 5 | 0 | 0 | 128 | 125 | 5 | | 0 | 0 | 130 | 118 | | 5 | 0 | 0 | 123 | | **LOYALIST** | 126 | 2 | 0 | 0 | | 128 | 130 | 2 | 0 | | 0 | 132 | 130 | 2 | 0 | 0 | 132 | 132 | 2 | | 0 | 0 | 134 | 129 | | 2 | 0 | 0 | 131 | | **MOHAWK** | 390 | 12 | 4 | 12 | | 418 | 415 | 13 | 4 | | 9 | 441 | 409 | 13 | 5 | 8 | 435 | 409 | 13 | | 5 | 5 | 432 | 408 | | 10 | 6 | 0 | 424 | | **NIAGARA** | 301 | 5 | 1 | 0 | | 307 | 295 | 8 | 1 | | 1 | 305 | 283 | 9 | 1 | 1 | 294 | 276 | 9 | | 1 | 1 | 287 | 270 | | 9 | 1 | 1 | 281 | | **NORTHERN** | 76 | 0 | 0 | 0 | | 76 | 78 | 0 | 0 | | 0 | 78 | 81 | 0 | 0 | 0 | 81 | 80 | 0 | | 0 | 0 | 80 | 81 | | 0 | 0 | 0 | 81 | | **ST. CLAIR** | 272 | 8 | 0 | 0 | | 280 | 249 | 7 | 0 | | 0 | 256 | 256 | 7 | 0 | 0 | 263 | 266 | 8 | | 0 | 0 | 274 | 248 | | 8 | 0 | 0 | 256 | | **ST. LAWRENCE** | 221 | 5 | 1 | 0 | | 227 | 206 | 5 | 1 | | 0 | 212 | 198 | 4 | 1 | 0 | 203 | 194 | 5 | | 1 | 0 | 200 | 196 | | 5 | 1 | 0 | 202 | | **SAULT** | 113 | 4 | 0 | 6 | | 123 | 122 | 4 | 0 | | 6 | 132 | 124 | 4 | 0 | 2 | 130 | 115 | 4 | | 0 | 5 | 124 | 121 | | 3 | 0 | 3 | 127 | | **SENECA** | 603 | 27 | 12 | 0 | | 642 | 626 | 28 | 12 | | 0 | 666 | 618 | 28 | 12 | 0 | 658 | 613 | 29 | | 12 | 1 | 655 | 605 | | 38 | 10 | 1 | 654 | | **SHERIDAN** | 511 | 12 | 8 | 2 | | 533 | 500 | 12 | 7 | | 3 | 522 | 486 | 10 | 6 | 5 | 507 | 440 | 12 | | 5 | 5 | 462 | 414 | | 9 | 3 | 5 | 431 | | **SIR SANDFORD FLEMING** | 196 | 9 | 0 | 0 | | 205 | 189 | 10 | 0 | | 0 | 199 | 184 | 10 | 0 | 1 | 195 | 178 | 9 | | 0 | 2 | 189 | 192 | | 7 | 0 | 1 | 200 | | **TOTAL** | 7101 | 236 | 62 | 47 | | 7446 | 7080 | 250 | 63 | | 48 | 7441 | 7009 | 246 | 60 | 47 | 7362 | 6930 | 246 | | 61 | 43 | 7280 | 6811 | | 248 | 56 | 25 | 7140 | |
| 8.2 Physical Resources **Review / discuss:**   * **Program costing information** * **Scope of current program resources such as laboratory equipment, software, library holdings, or tools essential to or which enhance program delivery or student learning** * **The adequacy of above resources in the context of program outcomes, program currency, and student numbers** * **Program specific external revenue such as sponsorships, grants, donations or gifts-in-kind** * **Other externally generated revenues, if applicable**  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Sir Sandford Fleming College - Program Costing** | | | | |  |  |  | |  |  |  |  |  |  |  |  | | **Program Name: Ontario College Diploma in Electrical Engineering Technician** | | | | | | |  | |  | | | | | |  |  | |  |  |  | Tuition Fee net holdback (per yr) = | | | $1,864 |  | |  |  |  | Funding Factor (per yr) | |  | 2.99 |  | |  |  |  | BOG (per yr) = | |  | $3,200 |  | |  |  |  | Attrition |  |  | 12% |  | |  |  |  |  |  |  |  |  | | (All values expressed in current dollars) | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  | **Start-Up** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** | |  | **2009/10** | **2009/10** | **2010/11** | **2011/12** | **2012/13** | **2013/14** | **2014/15** | | Fall |  | 90 | 121 | 131 | 148 | 148 | 148 | | Winter |  | 83 | 112 | 122 | 138 | 138 | 138 | | Summer |  |  |  |  |  |  |  | | **Enrolment - All Semesters** |  | **173** | **233** | **253** | **286** | **286** | **286** | | **FTE** |  | **87** | **117** | **127** | **143** | **143** | **143** | |  |  |  |  |  |  |  |  | | **Revenues** |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | | Tuition Fees |  | 161,227 | 217,144 | 235,783 | 266,538 | 266,538 | 266,538 | | Follett - Electrical Kits |  | 13,840 | 18,640 | 20,240 | 22,880 | 22,880 | 22,880 | | MTCU Operating Grant Received |  | 0 | 137,939 | 323,717 | 525,443 | 615,541 | 657,800 | | **Total** |  | **175,067** | **373,723** | **579,741** | **814,860** | **904,959** | **947,218** | |  |  |  |  |  |  |  |  | | **Expenses** |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | | Academic Direct |  | 373,099 | 474,503 | 489,282 | 554,140 | 554,140 | 554,140 | | FT Co-ordinator (shared) |  | 10,684 | 15,123 | 15,598 | 16,286 | 16,286 | 16,286 | | FT Technician |  | 15,043 | 15,043 | 15,043 | 15,043 | 15,043 | 15,043 | | Electrical Kits |  | 13,840 | 18,640 | 20,240 | 22,880 | 22,880 | 22,880 | | Course Supplies |  | 8,650 | 11,650 | 12,650 | 14,300 | 14,300 | 14,300 | | Allocated: Faculty Supplies, Professional Development & Other Services |  | 15,570 | 20,970 | 22,770 | 25,740 | 25,740 | 25,740 | |  |  |  |  |  |  |  |  | | **Start-Up Costs** |  |  |  |  |  |  |  | | Capital Items |  |  |  |  |  |  |  | | Small Items |  |  |  |  |  |  |  | | Software |  |  |  |  |  |  |  | | Information Technology |  |  |  |  |  |  |  | | Curriculum Development | 10,000 |  |  |  |  |  |  | | Marketing: Specialized |  |  |  |  |  |  |  | | Facilities: Renovations | 50,000 |  |  |  |  |  |  | | Shared & Funded by AEF | ($ 50,000) |  |  |  |  |  |  | | LRSS: New Library Resources |  |  |  |  |  |  |  | |  | **10,000** |  |  |  |  |  |  | | **Total** |  | **436,886** | **555,930** | **575,583** | **648,390** | **648,390** | **648,390** | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | | **Net Contribution or (Cost) of Proposed** |  |  |  |  |  |  |  | | **New Program** | **($10,000)** | **($261,819)** | **($182,207)** | **$4,158** | **$166,471** | **$256,569** | **$298,828** | |  |  |  |  |  |  |  |  | | **Contribution** |  | **(149.6%)** | **(48.8%)** | **0.7%** | **20.4%** | **28.4%** | **31.5%** | |  |  |  |  |  |  |  |  | | **Cumulative Cash flow** |  | **($271,819)** | **($454,026)** | **($449,868)** | **($283,397)** | **($26,828)** | **$272,000** | |  |  |  |  |  |  |  |  | | Lab Space at 20 for Year 1 &2. Increased to accommodate a section of 30 thereafter | |  |  |  |  |  |  |   <contacted Max/Patti-Lynn to collect/compile> |

# Program Review Action Plan

|  |  |  |
| --- | --- | --- |
| **Program Review Action Plan** | **Responsibility** | **Timeframe** |
| **Recommendations:** | | |
| Revise core courses and hours as appropriate to  1. Reduce program hours (currently exceed MTCU guidelines),  2. Refresh and update course content,  3. Integrate topics between courses,  4. Remove unnecessary and outdated content in core courses.  See [proposed curriculum](file:///C:\Users\David%20Choi\Desktop\EE%20Structure%20Proposal2.xlsx) for implementation in fall 2016 | Program Coordinators; Program Team;  Dean and Chair to approve changes | Spring Development Time 2015 (for SEM1 and SEM2);  Spring 2016 for SEM3 and SEM4) |
| Based on approved changes to core courses and curriculum: revise course descriptions, indicate any delivery pattern changes on grids, check pre- and co-requisites, and make sure correct updated information is reflected in external web description for prospective students. | Program Coordinators; Program Team;  Dean and Chair to approve changes | Changes MUST be sent to AO according to internal timelines |
| Adjust MATH122 and 123 topic sequencing and depth based on ETQ/EE/INT coordinators and program team feedback.  Students are typically weak in MATH and lack ability to apply previously learnt concepts.  Team requested that all testing be cumulative with the recognition that more students may fail as a result | GAS Math Faculty – Soobia Siddiqui;  Clive Russel | Changes will be implemented for 2015/16 academic year |
| EE/INT Program Coordinators to investigate potential pathways for Technician graduates to University.  This also ties into strategic/academic priorities as every program at the college will be mandated to have an outbound pathway. Note that bridging MATH or other courses are typically required for entrance into outbound pathway programs. | David Choi,  Blane Bell,  Dean  Chair | 2015/15 academic year |
| Investigate possibility of Co-op or CODA option in ETQ/EE; There is currently no work-integrated learning components in ETQ or EE programs. INT does offer a co-op option. | David Choi  Dean  Chair | TBD |
| ETQ/EE coordinator, program team, and STT academic leaders to address the consistently low KPIs in a number of areas (e.g. for student satisfaction with teachers and the learning experience) Action plan required. | Program Coordinators  Program Team  Dean  Chair | TBD |

# References

## Program Quality Assurance Process

## Program Review Guide

## Program Modification Guide/Checklist

## Key Research Findings for Electrical Techniques/Electrical Engineering Technician

## Previous Advisory Committee Meeting Minutes

## KPI Data

## Program Panel Meeting Minutes

## EMSI ETQ and EE Occupations

## EMSI Industries for ETQ and EE

## Electrical and Control Technician - A realistic Job Preview

# Appendix

## Labour Market Information

**Electrical Techniques**

Library Program Research September 9, 2010

**Overview of the Profession:** (includes labour market information)

TIP: Site defaults to “Summary”, you may need to click on “***All Sections”*** for labour market info.

Note: Due to the fact that this program is considered an “entry-level” certificate, typically used to enter into an apprenticeship or further education, a career/NOC code cannot be easily designated. As such, this program falls under the following NOC codes:

NOC 9483-C – Electrical Assemblers

<http://www.workingincanada.gc.ca/report-eng.do?area=8792&noc=9483&province=35&action=final&display=complete>

* Low: $10.50 Average: $14.50 High: $20.00

NOC 6621-B – Technical Sales Specialist – Wholesale Trade

<http://www.workingincanada.gc.ca/report-eng.do?area=8792&noc=6221&province=35&action=final&display=complete>

* Salary (2009): Low: $11.50 Average: $21.90 High: $37.80

\*NOC 2241-B – Electrical and Electronics Engineering Technologists and Technicians

<http://www.workingincanada.gc.ca/report-eng.do?area=8792&noc=2241&province=35&action=final&display=complete>

* Salary (2009): Low: $15.00 Average: $22.75 High: $34.20

\*NOC 2242-B – **Electrical and Electronics Engineering Technologists and Technicians**

<http://www.workingincanada.gc.ca/report-eng.do?area=8792&noc=2242&province=35&action=final&display=complete>

* Low: $14.00 Average: $19.05 High: $27.10

***\*Typically require more specific educational requirements/training, but useful for LMI data***

**Other LMI Data:**

Canadian Occupational Projection Summaries (2009-2018): Technical Occupations In Electronics And Electrical Engineering (224)

<http://www23.hrsdc.gc.ca/occupationsummarydetail.jsp?&tid=41>

**Educational Competitors**

**Individual Community College/Institute Information**

(Click on Program Title to view college program page)

**Electrical Techniques – Program Standards**

<http://www.edu.gov.on.ca/eng/general/college/progstan/techno/45613e.pdf>

1. Canadore College

**Electrical Techniques**

<http://www.canadorec.on.ca/ProgramInfo/SkilledTrades/030618.cfm>

1. Fanshawe College

**Electrical Techniques**

<http://www.fanshawec.ca/EN/elt1/program/next.asp>

1. Lambton College

**Electrical Techniques**

<http://www.lambton.on.ca/Program_info.aspx?id=8461>

1. Loyalist College

**Electrical Techniques**

<http://www.loyalistcollege.com/programs-and-courses/full-time-programs/electrical-techniques>

1. St. Clair

**Electrical Techniques**

<http://www.stclaircollege.ca/programs/postsec/elec_techniques/>

1. Cambrian College

**Electrical Techniques**

<http://www.cambriancollege.ca/Programs/Programs/201009EETQ.HTM>

**Employment Postings:**

Source: Jobbank.gc.ca

Job Number: 5250935

Title: Electronic component tester - electronic equipment manufacturing ([NOC: 9483](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=9483))

Terms of Employment: Temporary, Full Time, Day

Salary: $14.00 Hourly for 40 hours per week

Anticipated Start Date: As soon as possible

Location: CARLETON PLACE , Ontario (1 vacancy)

Skill Requirements:

Education: Completion of high school

Credentials (certificates, licences, memberships, courses, etc.): Not required

Experience: 2 years to less than 3 years

Languages: Speak English, Read English, Write English

Area of Specialization: Testing

Type of Product Specialization: PCB (Printed Circuit Boards)

Type of Inspection or Testing Specialization: Electronic components

Specific Skills: Operate automatic and semi-automatic machines to position, solder and clean prescribed components on PCB (printed circuit boards), Inspect electronic components and assemblies to ensure adherence to specified requirements, Perform simple electrical and continuity testing of electronic components, parts and systems, Set up and operate automatic testing equipment to locate circuit and wiring faults, shorts and component defects, Conduct life tests (burn-ins) on components, subassemblies and assemblies

Additional Skills: Maintain test result reports

Work Conditions and Physical Capabilites: Hand-eye co-ordination, Attention to detail, Manual dexterity

Transportation/Travel Information: Valid driver's licence, Public transportation is not available

Essential Skills: Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

Employer: MaxSys Staffing and Consulting (Placement Agency)

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: hamilton@maxsys.ca

Web Site: http://www.maxsys.ca

Advertised until: 2010/09/16

**Job Number:** 5260364

**Title: Order desk agent (Counter Sales) (**[**NOC: 1453**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=1453)**)**

**Terms of Employment:** Permanent, Full Time, Day

**Salary:** To be negotiated, Other Benefits, Medical Benefits, Dental Benefits, Disability Benefits, Life Insurance Benefits, Group Insurance Benefits, Pension Plan Benefits, RRSP Benefits, Vision Care Benefits

**Anticipated Start Date:** As soon as possible

**Location:** Burlington, Ontario (1 vacancy)

**Skill Requirements:**

**Education:** Completion of high school, Some college/CEGEP/vocational or technical training

**Credentials (certificates, licences, memberships, courses, etc.):** Not applicable, Not required

**Experience:** 1 year to less than 2 years

**Languages:** Speak English, Read English, Write English

**Work Setting:** Private sector, Retail and wholesale distribution center

**Business Equipment and Computer Applications:** Windows, General office equipment, Electronic mail, Internet browser

**Specific Skills:** Answer inquiries and provide information to customers, Sell merchandise, Receive payments, Issue receipts and other forms, Receive credit and employment applications, Arrange for refunds and credits, Access and process information

**Work Conditions and Physical Capabilities:** Fast-paced environment, Work under pressure, Repetitive tasks, Handling heavy loads, Attention to detail, Standing for extended periods, Walking

**Work Location Information:** Urban area

**Essential Skills:** Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

**Other Information:**This chosen candidate MUST have a background in or knowledge of electrical products and the electrical industry.

**Employer:** Gerrie Electric

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**By Mail:**

4104 South Service Road  
Burlington, Ontario  
L7L 4X5

**By Fax:** (905) 681-1774

**By E-mail:** hr@gerrie.com

**Business Profile:** Gerrie Electric, Ontario's largest independent electrical distributor has an opening for a motivated individual to join our growing team

**Web Site:** http://www.gerrie.com

**Advertised until:** 2010/09/22

**Job Number:** 5260504

**Title: Assembler and wirer, motors and generators (wireperson/assembler) (**[**NOC: 9485**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=9485)**)**

**Terms of Employment:** Temporary, Full Time, Weekend, Day, Evening

**Salary:** To be negotiated

**Anticipated Start Date:** As soon as possible

**Location:** cambridge, on, Ontario (4 vacancies )

**Skill Requirements:**

**Education:** Completion of high school, Completion of college/CEGEP/vocational or technical training

**Experience:** 2 years to less than 3 years

**Languages:** Speak English, Read English, Write English

**Work Setting:** Industrial electric motor manufacturers

**Area of Specialization:** Assembly, Installation, Inspection, Testing, Fabrication, Fitting, Wiring

**Type of Equipment:** Overhead cranes, Crimping, brazing and soldering equipment

**Type of Product Specialization:** Industrial electric motors, Electric transformers, Electrical control equipment, Electrical distribution panels

**Type of Inspection Specialization:** Finished products, Electrical assemblies, Subassemblies

**Specific Skills:** Assemble and fit metal and prefabricated parts to close tolerances according to blueprints, Assemble winding into core and make electrical connections, Assemble and fit electrical motor or transformer auxiliary equipment, Interpret engineering drawings, electrical schematics and blueprints, Fit electrical control devices into switchboards and panelboards, Wire electrical connections for switchboards and panel boards, Assemble panelboard and switchboard cabinets and install bus bars, Monitor production, Check final assembly for adherence to quality control standards

**Additional Skills:** Maintain inspection records

**Work Conditions and Physical Capabilities:** Handling heavy loads, Physically demanding, Manual dexterity, Attention to detail, Hand-eye co-ordination, Standing for extended periods, Bending, crouching, kneeling

**Essential Skills:** Reading text, Document use, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Computer use

**Employer:** Allegis Group Canada (Placement Agency)

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**Contact Name:** Jen Woodruff

**By Phone: between 9:00 and 17:00:** (519) 707-1020

**By E-mail:** jwoodruf@aerotek.com

**Business Profile:** Allegis is a leader in the staffing industry.

**Advertised until:** 2010/09/30

**Job Number:** 5256012

**Title: Electrical equipment sales representative (Inside Sales and Warehouse) (**[**NOC: 6221**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=6221)**)**

**Terms of Employment:** Permanent, Full Time

**Salary:** To be negotiated, Medical Benefits, Dental Benefits, Life Insurance Benefits, Group Insurance Benefits

**Anticipated Start Date:** As soon as possible

**Location:** London, Ontario (1 vacancy)

**Skill Requirements:**

**Education:** Completion of high school

**Credentials (certificates, licences, memberships, courses, etc.):** Not required

**Experience:** No experience

**Languages:** Speak English, Read English, Write English

**Type of Sales:** Manufacturing, Marketing

**Type of Sales Account:** Local accounts

**Specific Skills:** Promote sales to existing clients, Assess client's needs and resources and recommend the appropriate goods or services, Consult with clients after sale to provide ongoing support, Resolve product and service related problems, Read and understand blueprints, Troubleshoot technical problems related to equipment

**Security and Safety:** Bondable, Criminal record check, Driver's validity licence check, Driving record check (abstract)

**Work Location Information:** On-site customer service

**Work Conditions and Physical Capabilities:** Fast-paced environment, Work under pressure, Tight deadlines, Handling heavy loads, Physically demanding, Manual dexterity, Attention to detail, Hand-eye co-ordination, Ability to distinguish between colours, Sitting, Combination of sitting, standing, walking, Standing for extended periods, Bending, crouching, kneeling

**Essential Skills:** Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

**Employer:** TORBRAM ELECTRIC SUPPLY

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**By E-mail:** dwong@torbramelectric.com

**Business Profile:** CANADIAN ELECTRICAL SUPPLY COMPANY WITH 70+ LOCATIONS THROUGHOUT CANADA

**Advertised until:** 2010/09/13

**Job Number:** 5248460

**Title: Electronics assembler (Entry Level) (**[**NOC: 9483**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=9483)**)**

**Terms of Employment:** Permanent, Full Time, Day, Night, Evening

**Salary:** $11.50 Hourly for 40 hours per week

**Anticipated Start Date:** As soon as possible

**Location:** Newmarket, Ontario (10 vacancies )

**Skill Requirements:**

**Education:** Not applicable, Not required

**Credentials (certificates, licences, memberships, courses, etc.):** Not applicable, Not required

**Experience:** 1 to less than 7 months

**Languages:** Speak English, Read English, Write English

**Area of Specialization:** Assembly, Inspection, Testing, Troubleshooting, Repair

**Type of Work Experience:** Hands-on assembly or fabrication

**Type of Product Specialization:** Electronic components, Microcircuits, Microchips, Subassemblies, Assemblies

**Type of Inspection or Testing Specialization:** Electronic components, Finished products, Subassemblies, Assemblies

**Specific Skills:** Install, mount, fasten, align and adjust parts, components, wiring and harnesses to subassemblies and assemblies, Inspect electronic components and assemblies to ensure adherence to specified requirements, Check final assembly for finish, labelling and packaging methods, Identify and mark acceptable and defective assemblies, Perform simple electrical and continuity testing of electronic components, parts and systems, Set up and operate automatic testing equipment to locate circuit and wiring faults, shorts and component defects, Conduct life tests (burn-ins) on components, subassemblies and assemblies

**Additional Skills:** Maintain test result reports, Collect, record and summarize inspection results

**Work Conditions and Physical Capabilites:** Hand-eye co-ordination, Attention to detail, Manual dexterity

**Essential Skills:** Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

**Employer:** Aerotek (Placement Agency)

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**Contact Name:** Janice Scruton

**By E-mail:** jscruton@aerotek.com

**Web Site:** http://www.aerotekcanada.com

**Advertised until:** 2010/09/15

**Job Number:** 5248460

**Title: Electronics assembler (Entry Level) (**[**NOC: 9483**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=9483)**)**

**Terms of Employment:** Permanent, Full Time, Day, Night, Evening

**Salary:** $11.50 Hourly for 40 hours per week

**Anticipated Start Date:** As soon as possible

**Location:** Newmarket, Ontario (10 vacancies )

**Skill Requirements:**

**Education:** Not applicable, Not required

**Credentials (certificates, licences, memberships, courses, etc.):** Not applicable, Not required

**Experience:** 1 to less than 7 months

**Languages:** Speak English, Read English, Write English

**Area of Specialization:** Assembly, Inspection, Testing, Troubleshooting, Repair

**Type of Work Experience:** Hands-on assembly or fabrication

**Type of Product Specialization:** Electronic components, Microcircuits, Microchips, Subassemblies, Assemblies

**Type of Inspection or Testing Specialization:** Electronic components, Finished products, Subassemblies, Assemblies

**Specific Skills:** Install, mount, fasten, align and adjust parts, components, wiring and harnesses to subassemblies and assemblies, Inspect electronic components and assemblies to ensure adherence to specified requirements, Check final assembly for finish, labelling and packaging methods, Identify and mark acceptable and defective assemblies, Perform simple electrical and continuity testing of electronic components, parts and systems, Set up and operate automatic testing equipment to locate circuit and wiring faults, shorts and component defects, Conduct life tests (burn-ins) on components, subassemblies and assemblies

**Additional Skills:** Maintain test result reports, Collect, record and summarize inspection results

**Work Conditions and Physical Capabilities:** Hand-eye co-ordination, Attention to detail, Manual dexterity

**Essential Skills:** Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

**Employer:** Aerotek (Placement Agency)

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**Contact Name:** Janice Scruton

**By E-mail:** jscruton@aerotek.com

**Web Site:** http://www.aerotekcanada.com

**Advertised until:** 2010/09/15

**Sept 2010 Employment Postings:**

Source: Jobbank.gc.ca

Job Number: 5250935

Title: Electronic component tester - electronic equipment manufacturing ([NOC: 9483](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=9483))

Terms of Employment: Temporary, Full Time, Day

Salary: $14.00 Hourly for 40 hours per week

Anticipated Start Date: As soon as possible

Location: CARLETON PLACE , Ontario (1 vacancy)

Skill Requirements:

Education: Completion of high school

Credentials (certificates, licences, memberships, courses, etc.): Not required

Experience: 2 years to less than 3 years

Languages: Speak English, Read English, Write English

Area of Specialization: Testing

Type of Product Specialization: PCB (Printed Circuit Boards)

Type of Inspection or Testing Specialization: Electronic components

Specific Skills: Operate automatic and semi-automatic machines to position, solder and clean prescribed components on PCB (printed circuit boards), Inspect electronic components and assemblies to ensure adherence to specified requirements, Perform simple electrical and continuity testing of electronic components, parts and systems, Set up and operate automatic testing equipment to locate circuit and wiring faults, shorts and component defects, Conduct life tests (burn-ins) on components, subassemblies and assemblies

Additional Skills: Maintain test result reports

Work Conditions and Physical Capabilites: Hand-eye co-ordination, Attention to detail, Manual dexterity

Transportation/Travel Information: Valid driver's licence, Public transportation is not available

Essential Skills: Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

Employer: MaxSys Staffing and Consulting (Placement Agency)

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: hamilton@maxsys.ca

Web Site: http://www.maxsys.ca

Advertised until: 2010/09/16

**Job Number:** 5260364

**Title: Order desk agent (Counter Sales) (**[**NOC: 1453**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=1453)**)**

**Terms of Employment:** Permanent, Full Time, Day

**Salary:** To be negotiated, Other Benefits, Medical Benefits, Dental Benefits, Disability Benefits, Life Insurance Benefits, Group Insurance Benefits, Pension Plan Benefits, RRSP Benefits, Vision Care Benefits

**Anticipated Start Date:** As soon as possible

**Location:** Burlington, Ontario (1 vacancy)

**Skill Requirements:**

**Education:** Completion of high school, Some college/CEGEP/vocational or technical training

**Credentials (certificates, licences, memberships, courses, etc.):** Not applicable, Not required

**Experience:** 1 year to less than 2 years

**Languages:** Speak English, Read English, Write English

**Work Setting:** Private sector, Retail and wholesale distribution center

**Business Equipment and Computer Applications:** Windows, General office equipment, Electronic mail, Internet browser

**Specific Skills:** Answer inquiries and provide information to customers, Sell merchandise, Receive payments, Issue receipts and other forms, Receive credit and employment applications, Arrange for refunds and credits, Access and process information

**Work Conditions and Physical Capabilities:** Fast-paced environment, Work under pressure, Repetitive tasks, Handling heavy loads, Attention to detail, Standing for extended periods, Walking

**Work Location Information:** Urban area

**Essential Skills:** Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

**Other Information:**This chosen candidate MUST have a background in or knowledge of electrical products and the electrical industry.

**Employer:** Gerrie Electric

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**By Mail:**

4104 South Service Road  
Burlington, Ontario  
L7L 4X5

**By Fax:** (905) 681-1774

**By E-mail:** hr@gerrie.com

**Business Profile:** Gerrie Electric, Ontario's largest independent electrical distributor has an opening for a motivated individual to join our growing team

**Web Site:** http://www.gerrie.com

**Advertised until:** 2010/09/22

**Job Number:** 5260504

**Title: Assembler and wirer, motors and generators (wireperson/assembler) (**[**NOC: 9485**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=9485)**)**

**Terms of Employment:** Temporary, Full Time, Weekend, Day, Evening

**Salary:** To be negotiated

**Anticipated Start Date:** As soon as possible

**Location:** cambridge, on, Ontario (4 vacancies )

**Skill Requirements:**

**Education:** Completion of high school, Completion of college/CEGEP/vocational or technical training

**Experience:** 2 years to less than 3 years

**Languages:** Speak English, Read English, Write English

**Work Setting:** Industrial electric motor manufacturers

**Area of Specialization:** Assembly, Installation, Inspection, Testing, Fabrication, Fitting, Wiring

**Type of Equipment:** Overhead cranes, Crimping, brazing and soldering equipment

**Type of Product Specialization:** Industrial electric motors, Electric transformers, Electrical control equipment, Electrical distribution panels

**Type of Inspection Specialization:** Finished products, Electrical assemblies, Subassemblies

**Specific Skills:** Assemble and fit metal and prefabricated parts to close tolerances according to blueprints, Assemble winding into core and make electrical connections, Assemble and fit electrical motor or transformer auxiliary equipment, Interpret engineering drawings, electrical schematics and blueprints, Fit electrical control devices into switchboards and panelboards, Wire electrical connections for switchboards and panel boards, Assemble panelboard and switchboard cabinets and install bus bars, Monitor production, Check final assembly for adherence to quality control standards

**Additional Skills:** Maintain inspection records

**Work Conditions and Physical Capabilities:** Handling heavy loads, Physically demanding, Manual dexterity, Attention to detail, Hand-eye co-ordination, Standing for extended periods, Bending, crouching, kneeling

**Essential Skills:** Reading text, Document use, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Computer use

**Employer:** Allegis Group Canada (Placement Agency)

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**Contact Name:** Jen Woodruff

**By Phone: between 9:00 and 17:00:** (519) 707-1020

**By E-mail:** jwoodruf@aerotek.com

**Business Profile:** Allegis is a leader in the staffing industry.

**Advertised until:** 2010/09/30

**Job Number:** 5256012

**Title: Electrical equipment sales representative (Inside Sales and Warehouse) (**[**NOC: 6221**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=6221)**)**

**Terms of Employment:** Permanent, Full Time

**Salary:** To be negotiated, Medical Benefits, Dental Benefits, Life Insurance Benefits, Group Insurance Benefits

**Anticipated Start Date:** As soon as possible

**Location:** London, Ontario (1 vacancy)

**Skill Requirements:**

**Education:** Completion of high school

**Credentials (certificates, licences, memberships, courses, etc.):** Not required

**Experience:** No experience

**Languages:** Speak English, Read English, Write English

**Type of Sales:** Manufacturing, Marketing

**Type of Sales Account:** Local accounts

**Specific Skills:** Promote sales to existing clients, Assess client's needs and resources and recommend the appropriate goods or services, Consult with clients after sale to provide ongoing support, Resolve product and service related problems, Read and understand blueprints, Troubleshoot technical problems related to equipment

**Security and Safety:** Bondable, Criminal record check, Driver's validity licence check, Driving record check (abstract)

**Work Location Information:** On-site customer service

**Work Conditions and Physical Capabilities:** Fast-paced environment, Work under pressure, Tight deadlines, Handling heavy loads, Physically demanding, Manual dexterity, Attention to detail, Hand-eye co-ordination, Ability to distinguish between colours, Sitting, Combination of sitting, standing, walking, Standing for extended periods, Bending, crouching, kneeling

**Essential Skills:** Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

**Employer:** TORBRAM ELECTRIC SUPPLY

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**By E-mail:** dwong@torbramelectric.com

**Business Profile:** CANADIAN ELECTRICAL SUPPLY COMPANY WITH 70+ LOCATIONS THROUGHOUT CANADA

**Advertised until:** 2010/09/13

**Job Number:** 5248460

**Title: Electronics assembler (Entry Level) (**[**NOC: 9483**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=9483)**)**

**Terms of Employment:** Permanent, Full Time, Day, Night, Evening

**Salary:** $11.50 Hourly for 40 hours per week

**Anticipated Start Date:** As soon as possible

**Location:** Newmarket, Ontario (10 vacancies )

**Skill Requirements:**

**Education:** Not applicable, Not required

**Credentials (certificates, licences, memberships, courses, etc.):** Not applicable, Not required

**Experience:** 1 to less than 7 months

**Languages:** Speak English, Read English, Write English

**Area of Specialization:** Assembly, Inspection, Testing, Troubleshooting, Repair

**Type of Work Experience:** Hands-on assembly or fabrication

**Type of Product Specialization:** Electronic components, Microcircuits, Microchips, Subassemblies, Assemblies

**Type of Inspection or Testing Specialization:** Electronic components, Finished products, Subassemblies, Assemblies

**Specific Skills:** Install, mount, fasten, align and adjust parts, components, wiring and harnesses to subassemblies and assemblies, Inspect electronic components and assemblies to ensure adherence to specified requirements, Check final assembly for finish, labelling and packaging methods, Identify and mark acceptable and defective assemblies, Perform simple electrical and continuity testing of electronic components, parts and systems, Set up and operate automatic testing equipment to locate circuit and wiring faults, shorts and component defects, Conduct life tests (burn-ins) on components, subassemblies and assemblies

**Additional Skills:** Maintain test result reports, Collect, record and summarize inspection results

**Work Conditions and Physical Capabilites:** Hand-eye co-ordination, Attention to detail, Manual dexterity

**Essential Skills:** Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

**Employer:** Aerotek (Placement Agency)

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**Contact Name:** Janice Scruton

**By E-mail:** jscruton@aerotek.com

**Web Site:** http://www.aerotekcanada.com

**Advertised until:** 2010/09/15

**Job Number:** 5248460

**Title: Electronics assembler (Entry Level) (**[**NOC: 9483**](http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=9483)**)**

**Terms of Employment:** Permanent, Full Time, Day, Night, Evening

**Salary:** $11.50 Hourly for 40 hours per week

**Anticipated Start Date:** As soon as possible

**Location:** Newmarket, Ontario (10 vacancies )

**Skill Requirements:**

**Education:** Not applicable, Not required

**Credentials (certificates, licences, memberships, courses, etc.):** Not applicable, Not required

**Experience:** 1 to less than 7 months

**Languages:** Speak English, Read English, Write English

**Area of Specialization:** Assembly, Inspection, Testing, Troubleshooting, Repair

**Type of Work Experience:** Hands-on assembly or fabrication

**Type of Product Specialization:** Electronic components, Microcircuits, Microchips, Subassemblies, Assemblies

**Type of Inspection or Testing Specialization:** Electronic components, Finished products, Subassemblies, Assemblies

**Specific Skills:** Install, mount, fasten, align and adjust parts, components, wiring and harnesses to subassemblies and assemblies, Inspect electronic components and assemblies to ensure adherence to specified requirements, Check final assembly for finish, labelling and packaging methods, Identify and mark acceptable and defective assemblies, Perform simple electrical and continuity testing of electronic components, parts and systems, Set up and operate automatic testing equipment to locate circuit and wiring faults, shorts and component defects, Conduct life tests (burn-ins) on components, subassemblies and assemblies

**Additional Skills:** Maintain test result reports, Collect, record and summarize inspection results

**Work Conditions and Physical Capabilities:** Hand-eye co-ordination, Attention to detail, Manual dexterity

**Essential Skills:** Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

**Employer:** Aerotek (Placement Agency)

**How to Apply:**

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

**Contact Name:** Janice Scruton

**By E-mail:** jscruton@aerotek.com

**Web Site:** http://www.aerotekcanada.com

**Advertised until:** 2010/09/15