**Program Review Self Study Template**

| **Program Coordinator:**  | **Blane Bell** | **School:** | **Skilled Trades and Technology** |
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| **Program Code:** | **INT (MTCU Code 51011)** | **Date Completed:** | **TBD** |
| **Program Name:**  | **Instrumentation and Control Engineering Technician** |

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| **Indicator****1.0 Industry Trends** | **Summary of Key Findings** |
| **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
 | Refer to Library Research: [Labour Market Information 2014](Library%20Research/Instrumentation%20Technician%20Labour%20Market%20Information.docx)and [INT Industry Research 2015](Library%20Research/EMSI_Industry_INT.rtf)PAC meeting scheduled for June 25th, 2015 |
| **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
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| **2.0 Curriculum Development and Framework** | **Summary of Key Findings** |
| **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.
 | Previous Curriculum Renewal Initiatives: [Refer to 2013 CBD planning document](../../Block%20Development%20Folder/Course%20Outline%20Review%20Summary%20Sheet%20for%20Block%20Development%20Planning%20For%20INT%20Fall%202013_bbFeb14.docx) Blane to copy previous curriculum renewal documents into CLT shared folder?  |
| **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
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| **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
 | Refer to [Credentials Framework](file:///H%3A%5C1.%20My%20Documents%5CCLT%5CCredentials_Framework.pdf) and [INT Program Standards (2012)](../../Program%20Standards/INT%20MTCU%20Program%20Standards_2012.pdf) Refer to current program description to review [Current Admission Requirements](instrumentation-and-control-engineering-technician.pdf) |
| **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.

 | Blane to copy updated curriculum map into CLT shared folder for INT |
| **2.4 b) Curriculum Map** **Submit an updated curriculum map as an attachment to the Program Review Report** |  |
| **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.
 | Refer to [INT Curriculum Information](INT_Curriculum%20Information.docx) for delivery modes |
| **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
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| **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
 | Rough Notes: * 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.).
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| **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
 | Rough Notes: * No current dual credit offerings (core INT courses)
* Dual diploma currently offered to/from EE and INT: “

From INT web description: “With just 8 additional courses you can complete a second diploma at Fleming in the Electrical Engineering Technician program and graduate with 2 diplomas in 3 years.” |
| **3.0 Student and Graduate Satisfaction** | **Summary of Key Findings** |
| **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)
 | **Key Performance Indicator results - #s 4, 8, 9, and 11:** Refer to [KPI Review of Programs (INT)](file:///S%3A%5Cshared%20data%5CCLT%5CSTT%5CTrades_TechPROGRAMS%5CInstrumentation_Control%20Technician_INT%5CProgram%20Review%5C2014-15%5CFDR%20Data_2015%5CINT_KPI%20ProgramReview_2011-2015.xlsx) for KPI data from 2011-2015. This data compares the INT program to the MCU and college.Rough Notes:KPI4: From 2011-2015, Fleming’s INT program is consistently below the MCU averages re: INT graduate satisfaction with generic and vocational learning outcomes. KPI8: INT Student satisfaction with the learning experience increased greatly within the 2013-2015 academic years but continues to be slightly lower than the MCU and college averages.KPI9: The data for student satisfaction with teachers is also significantly lower than that of other colleges offering an INT program. The 2014 reporting year was the only exception with student satisfaction in this category comparable to the MCU and college averages KPI11: Graduate satisfaction with the INT program has varied from 2011-2015 but remain consistently below the MCU and college averages.**Fleming’s KPIs for INT compared to other MCU INT programs:** Results are varied but overall shows that we are underperforming compared to the MCU INT averages. Refer to [INT KPI details (2010-2014)](FDR%20Data_2015/INT_KPI%20details_2010-2014.pdf) for additional information and data. **Tutoring Summary Report for 2014/15**: There were several requests for tutors from the Learning Centre for INT core courses, that MAY include ETQ and EE courses as well. For SEM1 and SEM2, 14 requests were for ELCT84, 9 requests for ELCT90, 3 requests for ELCT87, and 2 requests each for ELCT101, MATH122, and SCIE140 (INTspecific). There was one tutoring request for ELCT100 (INT), ELCT102 (INT), For SEM3 and SEM4 courses there were 16 requests for COMP460, 15 requests for ELCT117, 10 for ELCT94, 6 for ELCT95, 5 for ELCT88, 2 for ELCT104 (INT), and 1 request each for COMM32, ELCT 77, 105, 109, AUTM70 (INT), ELCT82 (INT), MECH99 (INT), and ELCT102 (INT).Please refer to the [tutoring services statistics](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
 | TBD if there are recent focus group feedback?Refer to [2011 focus group feedback for INT](../../CurriculumRenewal/FocusGroup2011/Summary%20of%20Student%20Focus%20Group%20for%20INT.docx)Program team to populate any relevant advising observations or informal discussions here (e.g., common challenges, desired vocations/pathways, etc.)  |
| **4.0 Employment Trends** | **Summary of Key Findings** |
| **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
 |  Refer to library research: [EMSI Occupations for INT](Library%20Research/EMSI_Occupations_INT.rtf) |
| **4.2 Other Graduate Destinations****Review / discuss:*** Alternative graduate destinations such as further education, international opportunities, volunteer service, or other experiences
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| **5.0 Strategic Positioning** | **Summary of Key Findings** |
| **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
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| **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
 | <Blane to comment on parallels and differences between Fleming programs and competitors>Refer to the [Library Research on INT Program Competitors](Library%20Research/INT%202015%20Educational%20Competitors.docx) (completed Spring 2015) for more information. One unique “value-added” distinction is the dual diploma offering between EE and INT.  |
| **6.0 Enrolment Trends** | **Summary of Key Findings** |
| **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 [Enrollment Data for INT](FDR%20Data_2015/INT_Enrollment%20Data_10%20years.xlsx)Program team input to complete section on student demographic profile, including level of maturity, diversity, prior knowledge, technological literacy, work experience, and expectations  |
| **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
 | **INT Retention**: From 2010-2013, there has been an 87% retention rate for INT from SEM1 to SEM2 and a retention rate of 87% within the college. The 3 year average from 2011-2013 is also 87% (returned to SEM 2 and retained within the college).Refer to the [2014 FDR report on retention](FDR%20Data/RetentionReportW14.pdf) for any additional details. |
| **7.0 External Relations** | **Summary of Key Findings** |
| **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
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| **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
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| **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.

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| **8.0 Program Resources**  | **Summary of Key Findings** |
| **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
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| **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
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File Program Review report in: **S:\shared data\CLT\School Name\Program Name**

Attach copies of existing and revised bench marks

Attach an updated Program Curriculum Map

**Based on an analysis of your key findings, identify areas that require attention.**

**Develop recommendations and an action plan that reflects the program’s priorities and its capacity to achieve them.**

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| **Program Review Action Plan** | **Responsibility** | **Timeframe** |
| **Recommendations:** |
| **Revise core courses and hours as appropriate to 1. Reduce program hours, 2. Refresh and update course content, 3. Integrate topics between courses, 4. Remove unnecessary and outdated content in core courses.** **See** [**proposed curriculum**](EE%20Structure%20Proposal2.xlsx) **for implementation in fall 2016 for EE**  | **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**  |
| **INT coordinator, program team, and STT academic leaders to address 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** |
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