**Curriculum Renewal:**

**Analysis and Action Plan Template 2013/14**

| **Program Coordinator:**  | **Scott Heard** | **School:** | **SENRS** |
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| **Program Code:** | **HET** | **Date Completed:** |  |
| **Program Name:**  | **Heavy Equipment Techniques** |

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| **A. Analysis of Indicators**Note: data is **not** recorded in this section of the template.**Reflect on, and discuss, the following indicators in the context of the curriculum and program:**   |
| 1. **Industry / Sector Trends**
	1. Are there new or emergent *industry or sector* related issues and trends identified over the past year and their potential impact on the program?

The industry Advisory Committee provides the sectoral standards and recommendations which are followed by this program. The industry is changing with more computerization and electrical components including:-electric drive systems-medium voltage systems on mobile equipment-low emission engine technology (Tier 4)-remote trackingTraining is also expanding as a result including such areas as: -medium voltage/arc flash trainingDue to the increase in technology demand for skills in this trade now include more computerized training. Technicians are increasingly mobile and need to be able to use a variety of diagnostic equipment on-site.* 1. What are the Advisory Committee recommendations from the past year that will affect the positioning, nature, or scope of the program?

New curriculum will be included in 2015 to cover medium voltage and arc flash training. A new course that covers recent trends will also be added to the curriculum so that new developments can be added as required. This course will change with trends and kept up-to-date as the industry undergoes changes.* 1. What information / observations have been generated via faculty and staff professional development, engagement in sectoral and profession associations, and involvement in community and employer networks connected to the field?

The PAC was re-established for this program last year. This year, the program received a donation of heavy equipment from Enbridge, Team Eagle, and Strongco.* 1. Are there new or changing employment trends in the industry or sector?

Trends reported by the Advisory Committee including the current mining boom and the age of technicians that work in the Aggregate Processing Industry. Mining requires Heavy Equipment Technicians as well as graduates of the Electrical Power Generation Program. Northern Ontario and Alberta are still hiring operators as well as technicians. The upswing in Forestry has also added jobs.* 1. What are the curriculum issues / strengths that have been identified by employers pertaining to graduate job readiness?

Employers who sit on the PAC are pleased with graduates. The one recommendation is to increase their soft skills, ie, customer service. This will be addressed in the new courses. |
| **2. Curriculum Development*** 1. Have there been any curriculum changes in the last year such as changes in course content and course materials, course / program outcomes, innovative delivery approaches, assessment practices, applied learning experiences, e-learning / blended learning? If yes, please provide details.

A new course that examines trends has been included in the curriculum. One course has been changed to allow room for the new course and has been redesigned with new learning outcomes. The learning outcomes have been changed to reflect changes in the program outcomes as a result of program review earlier in 2013.* 1. Does the current curriculum align with the college’s e-learning strategy which strives to have all Fleming graduates experience e-learning in each semester of their program?

Students have experience with e-learning in several courses including completing online modules from John Deere University. Students have experience with e-learning in several courses including completing online modules from John Deere University. Lectures are also online in several courses from these online providers.* 1. Are there any recent or anticipated initiatives that promote student pathways including dual credits, partnerships with high schools, program laddering, and university transfer / articulations, continuing education?

The program continues to offer a dual credit.* 1. Are there any new competitor programs and/or re-positioning of existing programs?

There are no new competitor programs at this time. This program continues to enjoy the strongest enrollment in the college system.* 1. Are there any new or changing provincial standards, standards for accreditation, credentials, and / or industry or sector certifications over the past year?

The College of Trades is now overseeing all of the Red Seal programs. While this does not have an impact now, it may in the future.* 1. What is the progress made from the last curriculum renewal initiative?

Replacement of two courses with two new courses: Trade Practices and Innovations in the Industry. Draft course description and learning outcomes were completed in October 2012. Both courses were enthusiastically endorsed by PAC on October 24, 2012. These courses will commence in 2015. |
| **3. Applied Learning*** 1. Does the current program contain a discrete Applied Learning opportunity for students? If yes, which category of Applied Learning is fulfilled?

\_\_\_ Field Work (Indirect Supervision)\_\_\_ Field Work (Direct Supervision)\_X\_\_ Co-op\_\_\_ Applied Project / Applied Research Project* 1. In the 2013/14 academic year, Fleming College will ask all programs with Applied Learning opportunities to align to an agreed upon framework. To confirm program alignment, please complete the appropriate Applied Learning Framework Checklist and attach it to this document. After completing the checklist, please answer the following: Is the program in alignment with the Applied Learning Framework? If no, what are the strategies in place to bring the program into alignment?

This program is aligned to the framework with a co-op semester. The students are at the college for one semester, are out for a semester for their co-ops and then return for Semester Three. * 1. If the answer to 3.1 is no, are there plans to create a discrete Applied Learning opportunity for students within this program? Why or why not?
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| **3. Student and Graduate Satisfaction**3.1 Key performance indicators # 4, 8, 9, and 11 (see **Appendix of Curriculum Guide** for a description of these).The KPIs continue to be strong and positive for this program. Graduate Satisfaction with the generic and vocational program outcomes (KPI 4) was very high in 2013 with 98% satisfied compared to the college average of 87% and system average of 87%. Students report high satisfaction with the learning experience (KPI 8) with 89% higher than the college average of 81% and system average of 86%. Students are satisfied with their teachers (KPI 9), with 84% satisfaction as opposed to 74% for the college and 77% in the system. In 2013, 97% graduates were satisfied with the program (KPI 11), higher than the college average of 83% and 88% in the system. 3.2 Review and discuss student retention on a semester by semester basis over the past year. |
| **B. Curriculum Strengths and Challenges** Summarize the curriculum strengths and challenges identified by the team.  |
| **Strengths:**The program has close ties with industry and industry members on the Program Advisory Committee provide the sectoral standards and recommendations which are followed by this program. These relations have provided much needed equipment as well as free access for the program to use a variety of online training modules which are incorporated into the program and form part of increasing e-learning opportunities for students. The program also belongs to the Canadian Association of Equipment Distributers and the Ontario Chapter and the Caterpillar Foundation. These memberships provide machines, financial support and diagnostic equipment for the program.The Heavy Equipment Technician program’s focus on safety is paramount. There is heavy emphasis on safety throughout the program. As the program continues to grow, faculty strive to maintain this critical focus.The second semester paid internship is a direct industry link with many students being hired by the company that hosted their internships.Feedback from students in a program advisory committee meeting in October 2012, supported that current students are highly satisfied with the program. They reported that faculty “know their stuff” and take time out to help the learners when needed. The students also like working on the new equipment as they know this is a reflection of the industry. Industry members supported that this is reflected when they hire Fleming graduates as they are easy to train and have the basic skills required performing the technical work.**Challenges:**While a large enrolment can be beneficial for program viability, increasing numbers of students has challenged the program staffing, equipment, and facility. More technician hours are required as, for safety reasons; only 20 students can be in the machinery lab at a time. The increased enrolment is also stressing internships and there needs to be more exploration to find new companies that will provide internships. Although there is some newer equipment, the industry is changing with more computerization and electrical components including such areas as electric drive systems, low emission engine technology and remote tracking. Due to this increase in technology, demand for skills in this trade now includes more computerized training to maintain and repair these advanced systems. Technicians are increasingly mobile and need to be able to use a variety of diagnostic equipment on-site. The program lacks these new components and will need them in the future.Fewer students are coming into the program with any mechanical skills as high schools have cancelled many programs such as automotive courses. This requires more one-to-one training in simple skills that many students used to have and is still time-consuming for faculty. |
| **C. Action Plan**Identify priority actions for the next year and the rationale for their inclusion. For each, indicate the project lead, and the proposed timelines for completion. **What resources are required to complete the action plan, i.e., software, equipment, and training?**  |
| * **Ongoing requirement for updated equipment**
* **Staff training on newer equipment so that the students can be trained/ taught the latest technologies in the field.**
* **Succession planning for faculty is paramount as there are several retirements likely to occur over the next few years**
* **Continual planning for updating and renewing equipment and tools**
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| **D. Deferred Actions**Record any issues that will need to bemonitored, researched, or deferred for future action. |
| * **Proposal for new addition has still not been planned for in the future.**
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| **E. Attach an updated Program Curriculum Map to your report**  |
| Please file an updated Program Curriculum Map in folder named Program Curriculum Map.: **S:\shared data\CLT\School Name\Program Name\Program Curriculum Map** |