**Program Review Self Study Template**

| **Program Coordinator:**  | **Susan Hyndman** | **School:** | **General Arts & Science (GAS)** |
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| **Program Code:** | **GHS** | **Date Completed:** | **January 2, 2013** |
| **Program Name:**  | **General Arts and Science College Health Science (GHS)** |
| **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
 | **See Appendix A: Key Research Findings: College Health Science Option (44700)**The College Health Science Option of the General Arts and Science program is designed to prepare students for entry into college programs that will allow them to pursue careers in health care or forensic sciences, such as Massage Therapy, Paramedic, Occupational Therapist / Physiotherapist Assistant, Practical Nursing, Biotechnology Technologist Forensics, and Fitness and Health Promotion.Twenty-four colleges offer this program, including all four of Fleming’s main competitors. Fleming has a 4%mean growth rate, slightly lower than the system rate of 5%.Out of the key competitors, Georgian has the highest mean growth rate (137%)and Seneca has the lowest (-5%).Overall, Mohawk has the highest mean growth rate (206%)and St. Clair has the lowest mean growth rate (-22%).Algonquin has the highest average registration with 1061 studentsand Boreal has the lowest with 14 students**.****Student Demand: Moderate**According to Fleming College’s *Key Research Findings Report for the College Health Science Option (44700)*, student demand for this program is moderate; i.e., Fleming enrollment growth is equivalent to system demand and is between 1.0 to 2.9%, based on OCAS enrolment data 2007-2011.**Labour Market: Moderate**Projected employment rate growth based on a consolidation of various Ontario, Canadian, and US sources including HRSDC, Sector Council Reports, US Bureau of Labor Statistics, and the MTCU Employment Profile, suggest that the labour market analysis is moderate; i.e., 3-5 positive labour market indicators. Overall, *Health Force Ontario* (2012) reports, “Job prospects for many allied health professionals in Ontario are excellent. Baby boomers (born between 1946 and 1964) are beginning to retire and there is a growing demand for professionals in many areas of health care.”**Competitive Analysis: Moderate**Based on the number of colleges offering the program as well as the ratio of applications to acceptances at Fleming compared to other colleges the competitive analysis is moderate; i.e., the Fleming conversion ratio is 1 above, below or equal to the system. Fleming’s ratio was equal to the system’s (3:1)in 2011, and the only direct competitor with a  ratio that is not lower than the system is Georgian (3:1)**.** Algonquin has had the highest number of applications and registrations for the past 5 years. Georgian had the best ratio in 2011 (0:1) and Canadore had the lowest (5:1).**Financial Analysis: Strong**Based on a review of Contribution to Overhead (CTO) for existing programs (2010-11) the financial analysis is strong; i.e, CTO is greater than 35%. As of the 2010/11 Program Costing Analysis, the GHS Program’s CTO is 54.1%.The Program Advisory Committee for GAS did not identify any sectoral standards or industry trends in either of the last two meetings (October 25, 2011 & November 8, 2012) that were specific or relevant for the GHS program. |
| **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
 | Because the GHS program is a pathway program for students who wish to enter into health-based programs (i.e., Massage Therapy, Paramedic, Occupational Therapist Assistant/Physiotherapist Assistant, Practical Nursing, Biotechnology Technologist Forensics, Fitness and Health Promotion), the GHS faculty and the program coordinator maintain strong ties with coordinators in these other programs within Fleming College. The GHS program coordinator has also made numerous presentations and has invited coordinators of these health-based programs to make presentations to GHS second semester students who are preparing to apply to their next program. In addition, the GHS program coordinator is continuing to build on her relationships with Trent University, the University of Guelph and other colleges that typically admit graduating students from the GHS program.Last, as part of the curriculum review conducted last year, the re-designed GHS program has incorporated two new courses – Professional Issues in Health Science and Integrating Theory and Practice. Both of these courses are intended to prepare and support students for their future health-based program by asking students to research and to think critically about legal, ethical and professional issues within these new fields. |
| **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.
 | The GHS program has been re-designed to provide a more integrated student learning experience. This integration is achieved through the coordination of topics across the program’s four core courses (Biology, Chemistry, Mathematics and Professional Issues). There is also a weekly linkage of learning topics and themes across these 4 core courses and the utilization of case studies and discussion of current issues. In addition, assignments are completed in more than one of the 4 core courses. This coordination and integration of topics/themes provides a more cohesive and comprehensive approach to student learning whereby students can readily see how the material is connected across their program of study.Also, the core promise to students is achieved through the increased advising and support for students. All faculty members who teach in the core courses act as academic advisors and meet weekly (formally and informally) to discuss challenges/issues.The program teaching team has also developed consistent expectations of students across the core courses; i.e., course outline checklist, consistent language and policies (**Appendix B: GHS Program Norms**). Progress reports that summarize student marks and attendance have been implemented as of September 2012 (**Appendix C: Sample GHS Progress Report**).  |
| **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
 | No major curriculum changes have been made to the GHS program since the original development in 2004. Over the past three years, the program teaching team has modified learning experiences within Biology, Chemistry, and Mathematics to improve student engagement and success. Generally, the curriculum now includes applied laboratory activities and demonstrations, WebCT-based preparatory exercises and discussions regarding integration of curriculum between program courses. These initiatives are aligned with the college’s e-learning and applied learning strategies.GNED25 (Self-Directed Learning) and GNED10 (Critical Thinking) were removed from the program as mandated General Education courses and were replaced by HLTH273 (Professional Issues in Health Science) and HLTH274 (Integrating Theory and Practice).These new courses focus on self-directed learning skills and critical thinking skills in a more applied and health related context.There was modification of delivery to the Chemistry course to be one lecture hour and one two-hour laboratory session per week.A second math course was added in Semester 2. (**Appendix D**: **GHS Curriculum Renewal for September 2012** summarizes the modifications to the program hours and delivery patterns across semesters 1 and 2 as a result of feedback from student focus groups, program faculty discussion and curriculum renewal.) Some other modifications are detailed below.**Biology** – Case study applications have been added and are discussed during lectures. Students respond to these applied situations during the subsequent laboratory session. To encourage student preparation prior to lab and lecture (just in time learning), laboratory preparation packages are completed to facilitate discussions.**Chemistry** – Online learning resources have been added to the course learning materials. The use of a formal lab notebook and laboratory reports that provide students with essential reporting skills have been introduced. An additional hour within the lab has been added to provide students with the opportunity to directly apply the knowledge they gain in the lecture.**Mathematics** – Seminar preparation packages were introduced to encourage practice and self-assessment. There was an increased focus on the development and implementation of health care related examples and applications. More frequent assessment has been added to allow for timely and relevant feedback to students.Multiple “drop-in” labs were timetabled conflict-free for Biology, Chemistry and Mathematics to allow students to meet with faculty outside of regular class time. GNED10 (Critical Thinking Skills) and GNED25 (Self Directed Learning) were removed from the program of study as of Fall 2012. The skills that were taught in those 2 courses are now embedded components within all core courses in the new curriculum. As reported in focus groups and course evaluations, GNED10 and GNED25 had poor student engagement and students did not see the relevance of these courses**.** Other changes from the curriculum review include:* A more intensive orientation package and introduction to the program is provided to students during week 1. This orientation includes comprehensive printed materials, faculty-led program introduction, a college scavenger hunt and video clips from GHS graduates discussing tips for success.
* A GHS program bulletin board was assembled with program information, faculty contacts and important dates.
* Students are provided with progress reports in Week 4 and Week 9 of their first semester. This initiative is in alignment with the Student Success and Retention pilot program within GAS.

The success of these recent changes will need to be evaluated in April 2013, as it is the first year through the re-design of the program.See the Program Review Action Plan for specific recommendations.  |
| **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
 | **Ontario College Credentials Framework**There are no MTCU Program Standards for the College Health Science Option. They are currently (2012) under review at the provincial level.**Admission Requirements**Students require an OSSD with the majority of credits at the College (C) and Open (O) level, including 2 College (C) English courses (Grade 11 and Grade 12) and 1 College (C) Grade 11 or Grade 12 science course (Chemistry, Physics or Biology). When (C) is the minimum course level for admission, (U) or (U/C) courses are also accepted. Mature students, who are 19 years of age before classes start and who do not possess an OSSD, can write the Canadian Adult Achievement Test to assess eligibility for admission. Additional testing or academic upgrading is made available to meet specific course requirements for this program, and all applicants are required to achieve course credit in any mandatory sciences, through Secondary School or through Academic Upgrading programs.The current minimum admission requirements assume that some students will choose the College Health Science Option to acquire the necessary background knowledge and improve their general academic skills, and thus enhance their qualifications as they seek a pathway to college-level programs in health care or forensic biotechnology.**Course Content, Levels, and Assessment Methodology**The current curriculum redesign more carefully aligns the core subjects in the program. The Math, Biology, Chemistry, and Communications courses are laddered over two semesters, so students begin with more basic college-level skills and content and then progress to a more advanced level in all subjects in the second semester of the program. There is also a strong tie between the first semester Professional Issues in Health Science and the second semester course, Integrating Theory and Practice. Moreover, the curriculum has been redesigned to integrate weekly themes across Biology, Math, Chemistry, and Professional Issues in Health Science. The assessment methodology is widely varied across the disciplines and courses but appeals to a wide variety of learning styles and utilizes a variety of evaluation methods, such as quizzes, tests, essays, case studies, lab reports, presentations, and portfolios. |
| **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.
 | In the absence of MTCU Program Standards, the course outcomes are aligned with the following 5 Program Goals: 1. Develop, through general knowledge gained in a wide variety of subjects, insight into both self and society
2. Develop flexibility and clarity of both thought and expression in order to develop communications competence to a level required by business and industry
3. Understand and utilize critical thinking processes and problem solving techniques
4. Examine and evaluate various aspects of our changing society to assist in developing a sense of personal and social responsibility as a citizen in society
5. Employ basic vocational skills from the areas of the Humanities, Social and Behavioural Sciences of Vocational Studies (Business, Technology)

All students must take one General Education Elective in the second semester, but they are free to choose any available course that explores one or more of the five General Education themes.The Essential Employability Skills are equally distributed across the two semesters of the program, and only one of the skills (8: show respect for the diverse opinions, values, belief systems, and contributions of others) is not evaluated as a learning outcome in any of the courses. The essential employability skills are addressed at the appropriate level for an Ontario College Certificate. Graduates will have achieved the fundamental personal management, teamwork, communications, problem solving and critical thinking skills to enter and progress in a diploma-level college program in health care or forensic sciences. |
| **2.4 b) Curriculum Map** **Submit an updated curriculum map as an attachment to the Program Review Report** | **See Appendix E: GHS Curriculum Map 2013** |
| **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.
 | Curriculum in the GHS program is currently delivered in a variety of modes with an emphasis on lecture plus lab or seminar components for the majority of the core courses. During the curriculum review process, the GHS faculty has suggested the implementation of online components into core courses (i.e., MyBioLab, Mastering Chemistry online resources, MyMathLab, MyCanadianCompLab, blogs, discussion board posts, quizzes within WebCT). These recommendations are being implemented for the first time in the 2012-13 academic year.**Semester 1 courses are delivered as follows:**SCIE148 – Human Biology I – 1 hour lecture + 2 hour lab (45 hours)HLTH273 – Professional Issues in Health Science – 2 hour seminar (30 hours)MATH117 – Mathematics for College Health Science I – 2 hour seminar + 1 hour computer lab (45 hours)SCIE150 – Chemistry for College Health Science I – 1 hour lecture + 2 hour lab (45 hours)COMM79 – Communication for Health Professionals – 2 hour seminar + 1 hour computer lab bi-weekly (38 hours)SOCI36 – Introduction to Psychology – 1 hour lecture + 2 hour seminar (45 hours)**Semester 2 courses are delivered as follows:**SCIE149 – Human Biology II – 1 hour lecture + 2 hour lab (45 hours)HLTH274 – Integrating Theory and Practice – 2 hour seminar + 1 hour guided learning (45 hours)MATH118 – Mathematics for College Health Science II – 2 hour seminar (30 hours)SCIE151 – Chemistry for College Health Science II – 1 hour lecture + 2 hour lab (45 hours)COMM146 – Communicating at Work for the Helping Professionals – 2 hour seminar + 1 hour hybrid lecture (45 hours)GNED – Choice of General Education Elective – 1 hour lecture + 2 hour seminar (45 hours)Students also interact with WebCT to access lecture notes, complete quizzes and/or assignments, engage in online discussions, retrieve course support resources and access course grades.Videos, other media and guest speakers are employed where appropriate as are the use of learning technologies (i.e., i-clickers). Some faculty members also incorporate the use of tablets during lectures/labs.The primary delivery of curriculum content is via lecture (typically to multiple sections of 30 at the same time) + lab/seminar (smaller section sizes of 30 in computer or chemistry/biology labs). In lecture, the theoretical concepts are presented whereas the practical and hands-on application/discussion of theory occurs during the smaller group labs or seminars. The program has also been re-structured such that first semester students are gradually introduced to web-based or hybrid-based material slowly and are guided by faculty as to how to use e-based learning resources within the core courses. The use of educational technology is increased and incorporated to a greater extent within second semester courses. First semester courses have been designed to provide as much face-to-face contact and support to students as possible. In addition, a much greater degree of health-related case studies and examples are used so that students can see the relevance of the material to their future program of study.Work-integrated learning experiences are incorporated into this pathway program as much as possible. As noted earlier, program faculty in health-related fields give oral presentations and attend information sessions. Two courses within the curriculum (HLTH273 and HLTH274) ask students to research and create a professional portfolio to showcase their skills and accomplishments and to develop realistic goals and strategies for their next learning or work experience. |
| **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?
 | **See Appendix F: GHS Course Outlines**The GHS teaching team met regularly to discuss and align their course learning outcomes, assessments and instructional strategies. Because the program has coordinated the topic sequences of the four core courses (Biology, Chemistry, Mathematics, Professional Issues), assessments are also coordinated and mapped on a semester-by-semester basis (**Appendix G: GHS Assessments**).In looking at the type of assessments used across the courses and across the 15 weeks, there are a variety of ways in which learning outcomes are being evaluated. Low-stakes quizzes (i.e., less than 5%) are used frequently throughout the semester to ensure students are keeping up with the content and allow faculty to gauge comprehension of the material. Larger assessment pieces such as research papers are used near the end of the semester after drafts and/or proposals have been submitted and students are provided with feedback. Both formative and summative assessments are being used. Assessment is occurring in terms of quizzes, tests, hands-on demonstrations, lab reports, oral presentations and written assignments. Writing skills are being supported throughout first and second semesters. |
| **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
 | The program faculty recognizes the importance of cultivating an awareness of and sensitivity to diversity. Supporting student diversity in terms of preparedness for college is inherent in a pathway program, and GHS faculty is attempting, through recent curriculum renewal and course and program redesign efforts, to create and foster a fully integrated and inclusive program culture that respects and values individual learning styles.The program is committed to developing a core group of faculty who will provide stable relationships for students across both semesters. Other benefits include increased faculty-student interaction and a more in-depth understanding of individual and cohort learning preferences and styles over the duration of the program. To this end, the program uses an integrated method of content delivery for core courses that speeds development of peer support and fosters a supportive and familiar social environment for learning.  |
| **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
 | The GHS Program Coordinator, the Dean of the School of Community Development and Health, the Dean of the School of General Arts and Sciences, Program Coordinator of the Health Information Management (HIM) Program and the Program Coordinator of the Pharmacy Technician (PHM) Program met in May 2012 to discuss the feasibility of adding the HIM program and PHM programs to the current suite of GHS destination programs. With the addition of a small number of preparatory math elements to the math course curriculum, GHS as a pathway program for HIM and PHM was endorsed by all members. It is expected that 2013 GHS graduates will be eligible for reserved seats in the HIM and PHM programs for Fall 2013.Starting January 2013, students from health-based programs within Fleming College (i.e., Massage Therapy, Practical Nursing, Paramedic, Occupational Therapist Assistant/Physical Therapist Assistant) will be admitted as first semester students in the GHS program. As a pilot “re-boot” project, these students with poor academic achievement or lack of college readiness will build on fundamental skills as GHS students and will re-enter their original program of study the subsequent Fall 2013 semester. This type of partnership with the School of Community Development and Health and the GHS program will benefit both schools in terms of retention and enrollment.  |
| **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)
 | The KPIs for the GHS program have been on a steady decline over the last few years and are reported below for some key questions on the survey.All responses were found to be below the provincial results (indicated in parentheses in the table below) for similar programs with the MTCU code of 44700 with the exception of question 9. Unfortunately, specific KPI information for comparable GHS programs at other colleges is not available under this larger code.

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| --- | --- | --- |
| **KPI Question** | **2010-2011** | **2011-2012** |
| Q4. Includes topics relevant to your future success | 73.2(75.0) Gap -1.8 | 72.0(74.0)Gap -2.4 |
| Q8. Develops your ability to solve problems using math | 57.5(60.0)Gap -2.5 | 54.0(59.5)Gap -5.5 |
| Q9. Develops your ability to work with others | 72.5(71.7)Gap +0.8 | 79.0(72.1)Gap +7.1 |
| Q11. Develops your computer skills | 27.0(56.1)Gap -29.1 | 26.0(46.0)Gap -20.0 |

It is anticipated that KPIs for 2012-13 will show improvements as a result of the integrated approach to curriculum and learning topics that is being implemented this current academic year.**See Appendix H: Complete GHS KPI Results 2010-2011**KPI scores have been in the bottom quartile specifically around the two main capstone questions (Q14 & Q26). However, the most recent KPI findings suggest some improvement in the last two years.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** |
| Q14 | 58.1 | 65.4 | 81.6 | 75.0 | 63.9 | 72.0 |
| Province | 75.8 | 74.8 | 75.8 | 77.4 | 73.1 | 74.6 |
| Q26 | 62.8 | 69.2 | 81.6 | 92.9 | 72.1 | 74.0 |
| Province | 81.7 | 78.7 | 80.3 | 80.9 | 77.8 | 79.4 |

Q14. Knowledge & skills that will be useful for the futureQ26. Overall quality of learning experienceTutoring requests from Learning Support Services (September 2010-April 2011) suggest students are requesting support for 2 of the 4 core courses: Biology and Mathematics. Tutors are also being requested for the Introduction to Psychology course. In recognition of these trends, the GHS program has begun to offer drop-in clinics that are accessible to students within the GHS program. Clinics are staffed by the faculty teaching the course and are scheduled across a number of different times of the week for each course. Because there has only been one semester of the “new” curriculum, themes from course evaluations are limited. However, initial trends across the science courses (Biology & Chemistry) suggest that more time needs to be devoted to the content (i.e., request for 2 or 3 hour lectures), less reliance on WebCT for weekly quizzes and lecture material and more hands-on practical labs. Students also wanted the courses, particularly the Chemistry class, to be more intellectually challenging. From Communications (COMM79), the themes involve students requesting more positive feedback on assignments, clarity in terms of goals, expectations and instructions on assignments, more time within class to work on assignments and/or receive help, more hands-on activities and/or discussions, more on citation, referencing and case studies and generally allowing students more time to work on assignments and fewer web-based activities/quizzes. Students also had difficulty making connections to this class and their program of study.In regards to the Professional Issues course, students seemed to struggle with the content and wanted more relevant and more practical examples. Students were also looking to engage in debates and more group work.In the Psychology course, the general theme involved students needing more time to understand the content. There was a general feeling that too much information was being delivered in the lecture. There were many comments regarding having a longer lecture period and a shorter seminar session. There were also requests to have more hands-on activities, more group work and no weekly quizzes.Unfortunately, course evaluations were not conducted for the first semester Mathematics course.As part of the annual curriculum review, course evaluations will be reviewed for the program as a whole across both semesters. |
| **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
 | The Dean met with the GHS students in the Fall 2011 semester. The meeting was to ascertain the students’ early perception of the college and their program. Forty students attended (approximately 50% of the program enrollment). Some of the trends emerging from these discussions are listed below.* *The majority of students expressed that they had not chosen the GHS program as their first choice. They had been given alternate offers.*

* *Students could not identify integration of curriculum between their program courses. Students commented that the fact that they were taking three General Education courses may have been a contributing factor.*
* *There was substantial negativity regarding GNED25 (Self-Directed Learning). The students had difficulty identifying the value of the course.*
* *Chemistry was regarded as an important subject. Students requested that a lab component be added to the chemistry courses.*
* *The GHS students also wished to progress through the program in cohorts and were not favourable to being in class with BTF students.*
* *The students were not particularly supportive of online courses.*

Student Advisor information was available for students in the GHS program for Fall 2009, Winter 2010, Fall 2010 and Winter 2011. It was observed that GHS students with “coaches” (i.e., faculty who met a minimum of twice a month) were just as likely to be retained in their second semester (75.0%) as GHS students with “advisors” (74.5%) (i.e., faculty who emailed students on a weekly basis). GPAs for Fall 2010 were higher, however, when students were assigned to “coaches” (2.5) vs. “advisors” (2.19).In the Fall 2012 semester, the program faculty team has begun to compile academic progress and attendance information at certain points in time (i.e., week 4, week 9) that all student advisors use. The end result of this data capture is for faculty to connect with students who are at risk and to provide advising information to assist students. (**See Appendix I: GHS Student Advising**). |
| **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
 | As the GHS program is a pathway for students into other health-based post-secondary diplomas, graduate employment statistics are not applicable or are difficult to obtain.Overall, the 5-year average graduation rate percentage (2008 – 2010) for GHS students is 67%. The 5-year average rate for students who are working after graduating the program is 92% which is higher than the college average (89%) and the provincial average (84%).Available data for Graduate Employment Rates and Employer Satisfaction (where available) are presented in the table below.  **See also Appendix J: Graduate Employment Rates.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | # of Grads. | # of Surveys | # Available for Work | # Working | # ContinuingEducation |
| Summer 06Fall 06Winter 07 | 49 | 34 | 3 | 3 | 31 |
| Summer 07Fall 07Winter 08 | 34 | 19 | 6 | 4\* | 13 |
| Summer 08Fall 08Winter 09 | 28 | 18 | 1 | 1 | 17 |
| Summer 09Fall 09Winter 10 | 56 | 37 | 9 | 7\* | 27 |

* \* = Employer Satisfaction was at 100%

As would be predicted and as the data suggest, the GHS program is reaching its goal regarding creating other post-secondary pathway opportunities for students. The majority of those graduates surveyed are continuing on with further education. |
| **4.2 Other Graduate Destinations****Review / discuss:*** Alternative graduate destinations such as further education, international opportunities, volunteer service, or other experiences
 | The GHS is a one-year certificate program that prepares learners for entry into college health programs. From Fall 2007 to Fall 2011, 55% of GHS students converted into other Fleming diploma programs with Paramedic and Practical Nursing being first and second choice pathways and Biotechnology Technologist Forensics the third choice. See **Appendix K** for complete listing of pathways within the college. |
| **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
 | VisionStudents succeeding through personalized learning. Innovation and achievement powered by people.MissionFleming champions personal and career success through applied learning. We contribute to community success and environmental sustainability through programs, services and applied research.ValuesThe student learning experience is our first priority. We value people and community.Fleming is committed to a sustainable future. We are inspired by Sir Sandford Fleming to innovate with vision and implement with excellence.College Strategic Priorities1. Achieving Excellence in Student Learning.2. Providing Superior Services and Facilities.3. Leading in Sustainability.4. Growing with Positive Results.5. Building Community Success.6. Developing the Fleming Working Environment**Learn Belong Become Core Promise**This program clearly supports the strategic plan for the college, the academic business plan and the GAS business plan. Specifically, the GHS program supports the primary goal articulated in Fleming’s Strategic Priority to achieve excellence in student learning through innovation in:* Outstanding applied learning
* High expectations and close student/faculty interaction
* Learning that comes from the entire student experience at Fleming—inside and beyond the classroom
* Pathways into the college and to careers and further learning opportunities

The GAS College Health Science Option provides a pathway opportunity for learners to smoothly and seamlessly transition to the college health care or forensic science program of their choice. The program develops and nurtures essential learning, self-management, and critical thinking skills that truly prepare learners for their future post-secondary studies. The newly re-designed program, curriculum, and assessments create an integrated applied learning experience within a supportive environment that promotes high quality student-faculty interaction and academic rigour.GAS has also approached staffing from the perspective of building a cohesive and consistent core program teaching team that consists of primarily full-time faculty**Operational Planning and Performance Review****Priority #1 *Achieving Excellence in Student Learning Objective 1.2:***1. Implement multifaceted retention strategies for GHS

Measurement:1. Implementation of retention strategies for GHS

**See attached *Success Strategies for GHS Programs Fall 2012 – Appendix L.******Objective 1.3:***Improve and increase pathways to facilitate access and ensure that graduates can pursue career alternatives and further educational opportunities ***Objective 1.4:***Develop and implement Core Promise Work Plan (Student Success)Measurement:1. Implement KPI Student Engagement strategy at the school level for identified programs.
2. Participate in the College KPI improvement Plan, which includes:

School task team to review course materials through a college-wide approach |
| **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
 | **See Appendix A: *Key Research Findings: College Health Science Option (44700)***Twenty-four colleges offer this program, including all four of Fleming’s main competitors, and most have a very similar focus on preparatory science, math, critical thinking, and communications skills with some emphasis on guiding student success and future program orientation in the health sciences. All offer pathways to college programs, but there are three colleges with alternative pathways.At Conestoga, students can take a one-semester General Arts and Science Health Option for entry into Biotechnology Technician, Dietician, Pre-Service Firefighter, Practical Nursing, Personal Support Worker, Paramedic, and Occupational Therapy Assistant/ Physiotherapy Assistant programs. The one-year Pre-Health Sciences Certificate Program is designed to prepare students for application to Conestoga College’s School of Health Sciences Advanced Diploma or Degree programs (Respiratory Therapist, McMaster University Bachelor of Science in Nursing, or Health Informatics Degree).At Loyalist, students entering the second semester of the certificate program can choose electives that will support either a diploma or degree orientation. Graduates who maintain a minimum average of 70% in the certificate program, and meet specific entrance requirements, are eligible for admission to the Brock University/Loyalist College collaborative Nursing Degree or other university-oriented science studies.At Northern, successful completion of both semesters (2.8 GPA) of the certificate program provides the prerequisite for entry into Northern’s Nursing Baccalaureate program (partnered with Laurentian University).No other colleges advertise an integrated curriculum across both courses and semesters, and only one other college, Niagara, advertises that all Science courses use health-related examples. Niagara also advertises small class and lab sizes and up to 75 hours of lab experience.Overall, the degree to which the courses in the program are integrated within and tied to health care themes over both semesters is distinctive. Other colleges offering the College Health Science Option include courses that Fleming might consider offering: Computer Skills and Applications, Human Anatomy and Physiology, Physics for Health Sciences, Introduction to Sociology, Critical Thinking / Problem Solving, and Health Care Informatics. |
| **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
 | Provincially, there has been a 3% increase in applications and an 8% increase in confirmations for **all** one-year General Arts & Science pathway programs (MTCU: 44700). The results for Fleming College applications and confirmations over the last 6 years are found below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
| App. | 575 | 647 | 626 | 628 | 691 | 735 |
| Confirm. | 232 | 241 | 250 | 2147 | 260 | 292 |

Complete statistics for application and confirmation data for other colleges are provided in **Appendix M.**Application and registration statistics for the GHS program at Fleming over the last six years is comparable to the trend across the province.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2007 | 2008 | 2009 | 2010 | 2011 |
| Applications | 176 | 183 | 212 | 243 | 253 |
| Confirmations | 80 | 78 | 99 | 105 | 110 |

Registration statistics were examined as of Fall 2007. Day 10 numbers are provided below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Fall2007 | Fall 2008 | Fall 2009 | Fall 2010 | Fall 2011 | Fall2012 |
| Day 10 Registered | 79 | 84 | 99 | 107 | 99 | - |

Regarding the student profile, the most recent analysis (Fall 2011) of where GHS students are drawn from reveals that 43% of first semester students came from the following regions:* 43% - within the SSFC catchment
* 38% - within the Peterborough area
* 19% - within the GTA
* 1% - within the Lindsay area
* 2% - within the Cobourg area
* 2% - within the Haliburton area

The number of students who lack the entrance qualifications for their college health program of choice appears to be increasing. Although quantitative data have not been gathered, student focus group information suggests that the majority of students in the GHS program in 2011-2012 was not accepted into other college health programs (such as Practical Nursing, Paramedic, Occupational Therapist Assistant) and were given an alternate offer to the GHS program. |
| **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
 | Retention rates for students in the GHS program were compiled and available from 2007 to 2011 in the Fleming Data Research site.

|  |  |  |  |
| --- | --- | --- | --- |
| Fall Intake | Sem 1Day 10 | Sem 2Day 10 | % Retained in College |
| 2006 | 76 | 62 | 82 |
| 2007 | 78 | 48 | 62 |
| 2008 | 86 | 65 | 76 |
| 2009 | 99 | 86 | 88 |
| 2010 | 107 | 72 | 67 |
| 2011 | 99 | 76 | 77 |
| Overall Total | 469 | 347 | 74 |

Retention over the last 5 years has been variable with an overall rate of 74%.The GHS program teaching team, the school and the college are actively working on retention and success strategies for students. Among the initiatives that are program-specific and geared toward improving retention and student success, the following have been implemented as of Fall 2012:* Comprehensive Orientation package featuring key program information, college services and contact information of faculty
* Identification of “at-risk” students (i.e., Accuplacer scores for literacy and numeracy are pulled from the database)
* Student Advisor meetings with at-risk students
* Enhanced curriculum that is coordinated and integrated among 4 core courses
* Dedicated teaching team that meets on a weekly basis to discuss student issues and curriculum challenges
* Coordinated approach to assessments and course policies
* Regular and timely progress reports for both attendance and academic achievement
* Multiple drop-in clinics for Chemistry, Biology, Communications and Mathematics
* Dean-led student focus meetings
* Gradual exposure and modeling of web-based learning resources
* Consistent expectations of students across core courses from teaching team
 |
| **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
 | This is an area that has not been pursued to date. It is vital to engage alumni not only as promoters of the program and examples of success but also to provide support and mentorship to current students. (**Appendix L:** ***Success Strategies for GHS Programs Fall 2012*** and the Recommendations in the Program Review Action Plan) |
| **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
 | To date, the PAC is the primary partner offering support. |
| **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.

  | There are regularly scheduled PAC meetings to discuss the GAS suite of programs. We have had excellent participation, engagement and support from its members. All meetings are conducted following Fleming College’s guidelines.There are representatives from the Kawartha Pine Ridge District School Board, Durham District School Board, Victoria, Northumberland and Clarington Catholic School Board, Trent University, Ministry of Community and Social Services and local business owners. In total, there are 8 PAC members who have served on the committee over the last 2 years.The PAC has agreed to meet once a semester.All members of the PAC have received the Orientation manual and the College’s policy on membership to an advisory committee.**See Appendix N: GAS PAC Meeting Minutes** |
| **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
 | The GHS faculty is made up of 5 full-time faculty. In certain semesters, depending on enrollment, there may be 1 or 2 contract faculty who teach a specific core course. There is also a technologist who is cross appointed across several schools in the college who assists with the preparation of the chemistry lab.Currently, there are no sessional or cross-appointed faculty in the GHS program. All faculty who teach in the GHS program meet the requirements for teaching within their discipline.In an effort to produce consistency in expectations/standards and to allow for a more integrated approach to the curriculum, the program is staffed primarily with full-time faculty. The full-time complement has taught together in the program over the last year and a half and has worked collaboratively on the curriculum review and renewal this past spring/summer period. The team meets regularly to discuss student issues/challenges and review assessments and the coordination of learning topics. A full-time Chemistry/Math faculty member was hired in August 2012 and a full-time Communications faculty member was hired in November 2012. Is it not anticipated that other full-time faculty will be hired specifically for the GHS program.Faculty are currently engaged in a college-wide initiative to review the use of technology in their courses. Professional development over the next academic year will focus on how to incorporate e-based learning effectively and will also concentrate on assisting faculty for this shift in teaching/learning. In the spring of 2013, faculty will review how the new curriculum has worked and will make adjustments (where appropriate and necessary) to the core courses. |
| **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
 | Based on a review of Contribution to Overhead (CTO) for existing programs (2010-11) the financial analysis is strong; i.e, CTO is greater than 35%. As of the 2010/11 Program Costing Analysis, the GHS Program’s CTO is 54.1%.The physical science lab space is problematic as there are many other programs that are vying for a room where true scientific experiments in biology and chemistry can be conducted. As such, classes for these two courses are sometimes scheduled at less than optimal times for students (i.e., beyond 5 or 6 pm). Other curriculum delivery that requires seminar and/or computer lab space has been less of an issue. |

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 reflect the program’s priorities and its capacity to achieve them.**

|  |  |  |
| --- | --- | --- |
| **Program Review Action Plan** | **Responsibility** | **Timeframe** |
| **Recommendations:** |
| * Further investigate use of online sources for SCIE148—Human Biology I
 | Susan Hyndman | Spring 2013 |
| * Modify assessment plan to include 3 tests in SCIE148—Human Biology I
 | Susan Hyndman | Winter 2013 |
| * Improve curriculum linkages between SOCI36—Introduction to Psychology, SCIE148—Human Biology I, SCIE150—Chemistry for College Health Science I and HLTH273—Professional Issues in Health Science
 | GHS Team | Winter and Spring 2013 |
| * Move feedback assignment from Week 5 to Week 6 in HLTH273—Professional Issues in Health Science
 | Helen Bajorek-MacDonald | Winter 2013 |
| * Investigate the use of a commercial database, such as Turnitin and SafeAssign, to check for plagiarism in major writing assignments in COMM79—College Communications for the Helping Professions
 | Devon Code | Spring 2013 |
| * Divide instructional time between lab and classroom in SCIE150—Chemistry for College Health Science I
 | Silvana Macdonald | Winter 2013 |
| * Remove the post-lab online discussions from SCIE150—Chemistry for College Health Science I
 | Erin Chambers | Winter 2013 |
| * Begin assigning marks in lecture using “exit questions” in SCIE150—Chemistry for College Health Science I
 | Erin Chambers | Winter 2013 |
| * Remove the culminating activity from Week 13 and replace with an assignment to be completed over Week 8 and submitted in Week 9 in SCIE150—Chemistry for College Health Science
 | Erin Chambers | Winter 2013 |
| * Change lab evaluation from a rubric to a grading sheet in SCIE150—Chemistry for College Health Science
 | Erin Chambers | Winter 2013 |
| * Provide an opportunity for more detailed exposure to health care options for students
 | GHS Team | Winter and Spring 2013 |
| * Investigate admission requirements for health programs at other colleges
 | CLT/Librarian Research | Winter 2013 |
| * Improve marketing strategies for the GHS Program
 | GHS and Marketing Team | Winter and Spring 2013 |
| * Include overall program average information in the progress report emails sent to students in Weeks 4 and 7
 | GHS Team | Winter 2013 and ongoing |
| * Continue weekly teaching team meetings
 | GHS Team | Winter 2013 and ongoing |
| * Continue contact between the GHS program coordinator and other Health and Wellness coordinators
 | Susan Hyndman | Winter 2013 and ongoing |
| * Maintain program consistency by continuing to develop and refine a Program Standards / Expectations document re: deadlines, absence documentation, late entry to class, gradebook set up, and team meeting frequency
 | GHS Team | Winter 2013 and ongoing |
| * Ensure the continued development of documentation that outlines the admission details for GHS students pursuing Fleming health programs
 | Susan Hyndman/ Darryl Papke | Winter 2013  |
| * Develop a tracking system to determine GHS pathways for graduates and those who do not complete the program and compile findings in an annual report
 | Susan Hyndman / FDR | Winter 2013 and ongoing |
| * Improve student engagement with LSS for more timely access to course-specific tutoring
 | Susan Hyndman / LSS | Winter 2013 and ongoing |
| * Continue to refine and implement student success strategies by maintaining linkages between courses in the program, improving time management and study skills, maintaining accessible office hours, improving instructional strategies, and providing useful and timely program information during orientation
* **See Appendix L: *Success Strategies for GHS Programs Fall 2012***
 | GHS Team | Implemented in Fall 2012 Ongoing for Winter 2013 |
| * Provide additional enrichment opportunities by establishing a GHS Program Facebook account, initiating contact with students prior to the beginning of the semester, organizing tours of employment facilities, inviting guest speakers, and communicating with and engaging program alumni as speakers and mentors
* **See Appendix L: *Success Strategies for GHS Programs Fall 2012***
 | GHS Team | Implementation in Fall 2012 and Winter 2013 Ongoing for Fall 2013  |
| * Ensure that Human Growth and Development, ASL and French are offered as GENED electives in the GHS block
 | Silvana Macdonald | Winter 2013 and ongoing |

Appendix A: Key Research Findings: College Health Science Option (44700) (p.1)

Appendix B: GHS Program Norms (p. 4)

Appendix C: Sample GHS Progress Report (p. 4)

Appendix D: GHS Curriculum Renewal for September 2012 (p. 5)

Appendix E: GHS Curriculum Map 2013 (p. 9)

Appendix F: GHS Course Outlines (p. 11)

Appendix G: GHS Assessments (p. 11)

Appendix H: Complete GHS KPI Results 2010-2011 (p. 14)

Appendix I: GHS Student Advising (p. 17)

Appendix J: Graduate Employment Rates (p. 17)

Appendix K: GHS Pathways (p. 18)

Appendix L: Success Strategies for GHS – Fall 2012 (p. 20)

Appendix M: Confirmation & Applications (p. 23)

Appendix N: GAS PAC Meeting Minutes (p. 26)