

407 Pharmacy Technician Program Review Final Report 2012/13 Program of Studies

Program Quality Spring 2012

Program Review Final Report	
Program	407 Pharmacy Technician
Ministry of Training, Colleges, Universities (MTCU) Vocational Standard	MTCU Funding Code 51623 (Appendix 1)
Professional Competencies	CPTEA Outcomes (Appendix 2), NAPRA Competencies (Appendix 3)
Credential	Ontario College Certificate
Dean	Paul Armstrong
Associate Dean	Dianne Barrafato
Program Review Membership	Angela Roach, Pharmacist, Program Coordinator George Tsallas, Pharmacist, FT Faculty Sandeep Syed, Pharmacist, PT Faculty Elaine Magowan, Pharmacy Technician PT Faculty Catharine Ozols, Curriculum Design Carmelinda Del Conte, Research and Planning Analyst Jaspreet Grewal, Course Outline/Program Review Support
Program of Studies	2010/11 (Appendix 2)
Final Analysis Session	July 4, 2012
Date of Interim Status Report	July 2013
Date of Next Program Review	2017
Date Submitted to VPA Office	October 16, 2012
For the Program (Dean or Associate Dean Signature For the Vice President Academic:	n): Oct. 16, 2012 Date
Signature	 Date

Overall Findings by Program Review Component

Program Review Phase	Program Review Component	Met	Partially Met	Not Met	Evidence	
Phase One	Course Outlines	✓			CORE	
Curriculum	Curriculum Mapping Matrix	✓			Appendix 5	
	Framework for Programs of Instruction	✓			Appendix 6	
	Program Advisory Committee	✓			Appendix 7	
	Focus Group	✓			Appendix 8	
	Survey Results	✓			Appendix 8a	
Phase Two	Key Performance Indicators	✓			Appendix 9	
Environmental Scan	Competitive Analysis	✓			Appendix 10	
	Student Success and Retention/Course Grades	✓			Appendix 11	
	Analysis Notes	✓			Appendix 12	
Phase Three	PLAR	✓			Appendix 13	
Quality Processes	Learning Plans	✓				
	eLearn	✓				
	General Education	✓			1	
	Student Feedback on Progress	✓			1	
	Re-thinking Assessment			1	Deferred until after accreditation.	

Summary of Findings

Introduction

The 2 year Pharmacy Technician program at Mohawk College was approved for launch in Fall 2000 and is currently run at the Institute for Applied Health Sciences where there is a dedicated computer lab, compounding/dispensing lab, and sterile products lab. Graduates of the program, with their knowledge of available drugs and medical devices, including herbals and complementary care medicine products, assist pharmacists in delivery of pharmaceutical services the community or institutional setting. They gain practical knowledge of dispensing prescriptions, compounding techniques, preparing and distributing pharmaceuticals, and maintaining drug inventory control. Being able to communicate effectively and performing their work with high levels of accuracy and responsibility are important graduate attributes. As members of an interprofessional healthcare team, Pharmacy Technician graduates work with other pharmacy and health care providers to optimize the health and well being of patients. Pharmacy Technicians graduates have employment opportunities in hospital pharmacies, community/retail pharmacies, long term care facilities, and other organizations and agencies such as pharmaceutical and insurance companies.

Mohawk's Pharmacy Technician program competes in an increasingly crowded market. Thirteen colleges now offer the program; three new programs (at Georgian, Fleming, Sault colleges) were launched in Fall 2011. After a dip in Fall 2010 and 2011, applications for Fall 2012 across all colleges are close to Fall 2009 levels. Pharmacy Technician programs across the system seem to attract a number of international students.

Program review for Mohawk's Pharmacy Technician program was completed during the Spring 2011 and 2012 timeframe. Course outlines were reviewed, revised, and CLinked to vocational standards in Spring 2011 Program Review workshops. Phase 3 Strategic Priorities and Program Quality data was also collected at that time. CLinking to the NAPRA competencies and CPTEA outcomes was completed in Spring 2012, as was the Phase 2 Environmental Scan. The focus group also was held in Spring 2012.

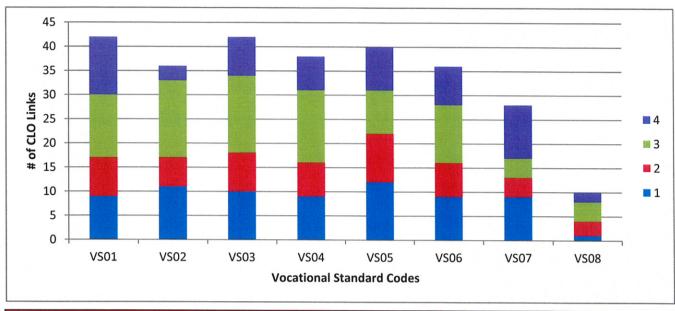
Phase 1- Curriculum

During the curriculum mapping process, each course outline was reviewed and revised as required, and also classified as Foundational (F), Specialized (S), or Integrational (I). Course learning outcomes (CLOs) were linked to relevant vocational standards and essential employability skills, and each link was then characterized (CH) by the degree to which it contributed to the graduate's ability to perform the outlined skill:

- CH Degree of Contribution
- 1 Minor
- 2 Moderate
- 3 Significant
- 4 Very Significant

The resultant Curriculum Mapping Matrix showed that the 2012/13 Program of Studies (POS) for the Pharmacy Technician program is compliant with MTCU's Vocational Standards.

2012/13 Pharmacy Technician CLO Links to Vocational Standards



	CH		7727			
					Grand	
VS Statement VS Statement	1	2	3	4	Total	3 & 4
VS01 - Practice safely within a legal, ethical and professional	9	8	13	12	42	60%
framework in practice settings.						
VS02 - Process prescriptions accurately in compliance with	11	6	16	3	36	53%
pertinent legislation and established standards, policies and						
procedures in practice settings.				-		
VS03 - Prepare pharmaceutical products for dispensing in	10	8	16	8	42	57%
compliance with pertinent legislation and established standards,						
policies and procedures in practice settings.						
VS04 - Release pharmaceutical products in compliance with	9	7	15	7	38	58%
pertinent legislation and established standards, policies and						
procedures in practice settings.						
VS05 - Collaborate with the pharmacist and other health care	12	10	9	9	40	45%
providers to optimize the patient's health and well-being within the						
scope of practice of the pharmacy technician.						
VS06 - Promote quality assurance by performing effective and	9	7	12	8	36	56%
efficient administrative functions in practice settings.						
VS07 - Optimize medication therapy management and product	9	4	4	11	28	54%
distribution using current technologies in practice settings.					20	3470
	1	2	4	-	10	6004
VS08 - Develop and implement effective strategies for ongoing personal and professional development that support currency,	1	3	4	2	10	60%
competence, ethics and values in the pharmacy sector.						4,1
Grand Total	70	F2	00		272	EEO/
Granu rotar	70	53	89	60	272	55%

All vocational standards and professional competencies had CLO links from a variety of courses and showed a

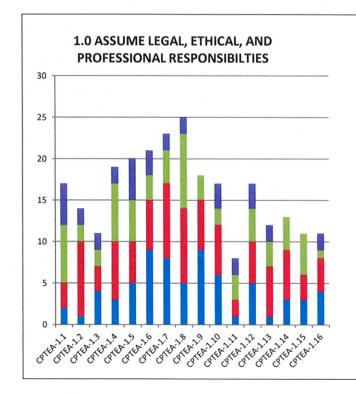
progression of depth and complexity of learning from Semester 1 to 4. There is no unplanned duplication of course learning outcomes (CLOs). Where duplication of CLOs does occur, it is in courses that build upon each other at increasing levels of depth and complexity (e.g. HSCI PM307, HSCI PM405, and HSCI PM991).

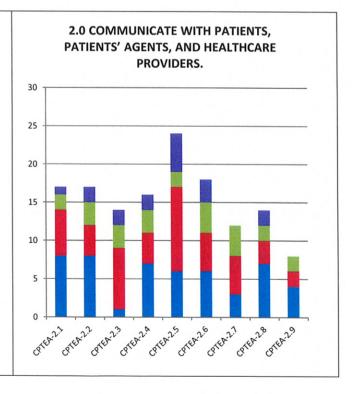
Patterns of emphasis (i.e.> # of links to VS) relate closely to core or essential skills that run through the majority of courses in the program of studies (e.g. VS03 - prepare pharmaceuticals for dispensing in compliance with legislation and established policies/procedures; VS01 - practicing within a legal, ethical, and professional framework; and VS05 - collaboration within the pharmacy team). VS08, with its emphasis on personal and profession development strategies, has only 10 CLO links. The majority of those links occur in courses where students are engaged in experiential learning activities (e.g. Community and Institutional Pharmacy Experience).

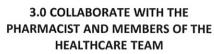
Most VS have over 50% of CLO links characterized at the significant (i.e. 3) and very significant (i.e. 4) levels. VS05, with its focus on collaboration with the pharmacist and health care team (i.e. the practice setting) has only 45% of CLO links characterized in the significant/very significant range. Students work on development of collaboration skills (i.e. CLOs that contribute to minor or moderate degrees toward collaboration) prior to engaging in experiential learning.

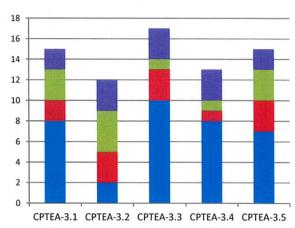
2012/13 Pharmacy Technician Course Links to CPTEA Outcomes

All CPTEA outcomes are covered within the Pharmacy Technician POS with a progression of depth and complexity through Semesters 1-4 (see CPTEA Summary in Appendix 5). As with the VS, patterns of emphasis relate to core or essential skills that run through many different courses and/or practice settings.

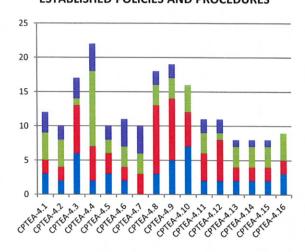


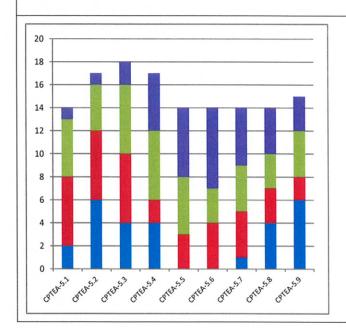


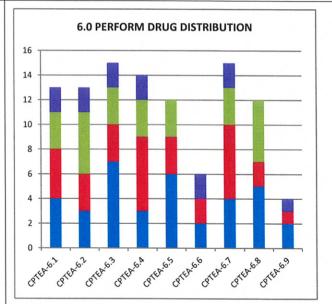


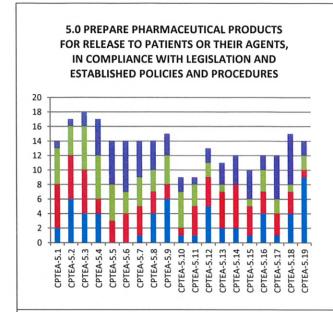


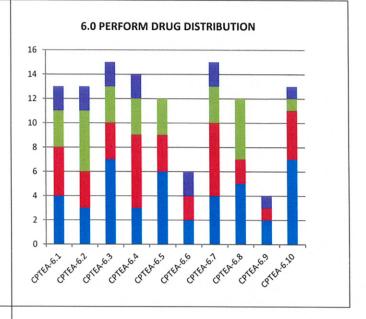
4.0 PROCESS PRESCRIPTIONS IN COMPLIANCE WITH LEGISLATION AND ESTABLISHED POLICIES AND PROCEDURES









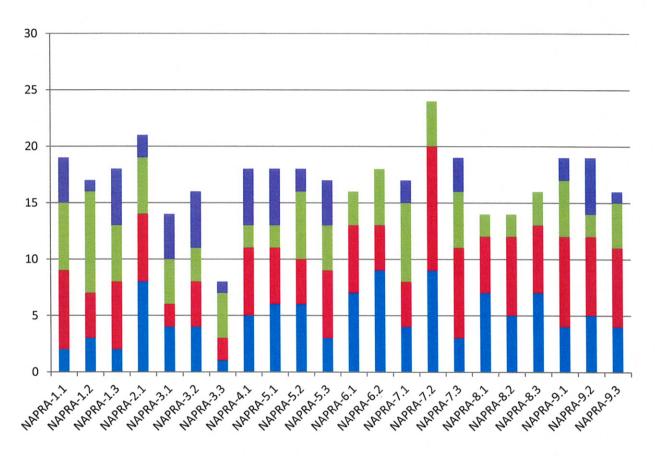




CPTEA-7.1 CPTEA-7.2 CPTEA-7.3 CPTEA-7.4 CPTEA-7.5 CPTEA-7.6

2012/13 Pharmacy Technician Course Links to NAPRA Competencies

All NAPRA competencies are covered within the Pharmacy Technician POS with a progression of depth and complexity through Semesters 1-4. As with the VS and CPTEA outcomes, patterns of emphasis relate to core or essential skills that run through many different courses and/or practice settings. Some competencies relate to fairly specific tasks (e.g. transferring prescriptions from pharmacy to another) and, therefore, have fewer course links than other, more broadly based competencies).



Focus Group/Survey Results

Focus group and survey respondents seemed to have had positive experiences working with students, being students, and/or being graduates of the program. Employers felt that the majority of students were well prepared; had good communication and problem solving skills, and a good work attitude. Focus group members would encourage students enrolled in the Pharmacy Technician program to get experience in a pharmacy prior to placement (e.g. work part time, volunteer, and job shadow). Students in the focus group felt more time could be allotted for Assistive Devices, Herbals, and Retail in final semester. Additionally, they stressed the need to ensure the alignment of theory with practical application of skills for greater continuity of learning. All stressed the need for math proficiency in this field.

As for the future, with the changing role of the pharmacist, increased opportunities may open up for pharmacy technicians (e.g. increased managerial responsibilities). Important skills continue to be communication, accuracy, safety, a sense of responsibility, and compliance with legislation, standards, policies, and procedures.

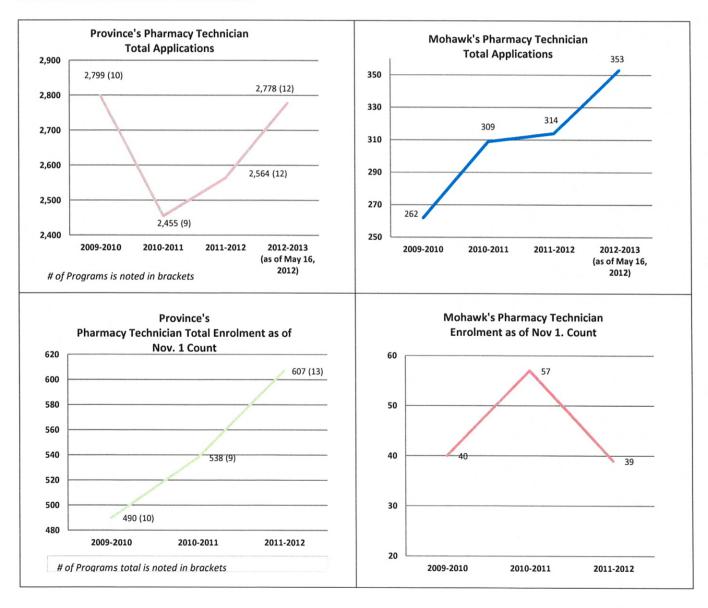
(See Appendices 1-8a for detailed Phase 1 documents.)

Phase 2 - Environmental Scan

Applications and Enrolments

Pharmacy Technician education is becoming increasingly competitive with 13 college programs across the province, 3 of which launched in Fall 2011. Of the 13 programs, 3 are oversubscribed: Niagara, St. Clair, and Mohawk. In line with recent trends, an increasing number of programs have winter or spring intakes in addition to the traditional fall intake. Sheridan offers a 16 month continuous option.

Applications for Pharmacy Technician programs across the system have been variable for the past few years but are strong for Fall 2012, reaching Fall 2009's high by mid-May. Total enrolments across the province, however, have been steadily increasing since Fall 2009. Applications to Mohawk's program have been increasing steadily since 2009. In Fall 2011, 27% of applicants indicated Mohawk's Pharmacy Technician program was their 1st choice; 25% indicated it was their 2nd choice. Despite the steady increase in applications, 1st year enrolment in this program has usually been capped at 40 with the exception of Fall 2010 when an additional cohort composed of International students was admitted.



Within the Pharmacy Technician education market, Humber has the largest share of applicants followed by Centennial, Mohawk, and Sheridan. While many students from outside the catchment area apply to Mohawk's program, few people actually enroll. In fact, most students attend college in their own area, except for Sheridan which loses student to Humber and, to a lesser degree, Mohawk and Centennial. Students from Mohawk traditionally apply to Niagara and Sheridan as well. To a lesser degree, they also apply to Humber and Fanshawe. In Fall 2011, more potential students left the Mohawk catchment to attend school in other institutions (10 versus 2 in Fall 2010). This may be due to the increased number of students who apply to but do not get accepted into Mohawk's program.

Many colleges offering the Pharmacy Technician program accept large contingents of international students. Mohawk piloted an International cohort of students but discontinued doing so for a number of reasons. First, there were key issues regarding graduate employment that could not be resolved. At the time of the pilot, International students were not able to apply for permanent resident status upon graduation from the Pharmacy Technician program and, therefore, the majority of International graduates relocated out of province (i.e. approximately 60% went to Saskatchewan and another 10% to other provinces). Another unresolved issue for this group was the English fluency requirements for admission, especially with regard to NAPRA and accreditations requirements; the International students needed a much higher level of English fluency than they had. Other considerations taken into account in the decision to suspend the International cohort was the program's oversubscribed status, the fact that domestic students are often waitlisted for the program, and the fact that the market for employment of domestic graduates is saturated (i.e. 82% of graduates able to gain FT related employment compared to provincial average of approximately 50%). Based on analysis of current enrolment trends, the program has maintained current planned enrolments for 2012/13.

It appears that only half the students that enroll in a program across the province graduate. About half of the provincial program graduates have program related employment; 82% of Mohawk's graduates have full time program related.

Student Success

This program generally has strong student success rates with a graduation rate hovering around 90% of students over the past 5 years. This strong graduation rate is 50% higher than the average graduation rate from all Mohawk College programs and approximately 30% higher than from other Pharmacy Technician programs across Ontario. Students who leave the program generally do so during their first year, many of them at the end of Semester 1. Generally, grades for students who enrolled in the program beginning in Fall 2009 and Fall 2010 were in the B- to B range (70-80%) for 1st and 2nd semesters and, then, rose into the B range (75-80%) in the 3rd and 4th semesters.

However, the Student Entrance Survey results showed that those enrolled in the Pharmacy Technician program for Fall 2011 entered with a significant number of risk factors that may have affected their performance and overall success rates

- 41% of students had a low math assessment score
- 50% had financial concerns*
- 63% are mature students*
- 46% are 1st Generation*
- 25% non-English immigrants*
- 47% work more than 15 hrs/wk*

o 34% of students have low career clarity* (makes sense if this was not their 1st choice program)

As evident in the course data provided in Appendix 11 there was unusually high attrition among 1st year students at the end of the Fall 2011 semester. Whereas the program would usually lose between 5-6 students at this time, the number increased to approximately 10 students.

This phenomenon will require ongoing monitoring of incoming students for risk factors and research to understand factors which impact their success. As in other years, some of the students who left in December 2011 may recycle back into the program in Fall 2012 to pick up the courses they failed and re-enter the program full time in January 2013. In future, there will be the potential to redirect students who struggle in Pharmacy Technician in to the proposed Retail Pharmacy Assistant program slated to start in January 2014 (pending approval).

Key Performance Indicator (KPI) Data

Student satisfaction with the Pharmacy Technician has been consistent over the past 5 years at an average score of 88% which is 15% higher than the 2011/12 provincial average and 8% higher than both the 2011/12 average for all other Pharmacy Technician programs and all other programs at Mohawk College. In fact, the Pharmacy Technician program has consistently been ranked in the top 3 colleges for student satisfaction in last 5 KPI surveys. 2011/12 KPI results regarding Question 14 "giving you knowledge and skills that will be useful in your future career" and Question 26 "the OVERALL quality of the learning experiences in this program" the program were 96.7% and 90.0% respectively - higher than all other Pharmacy Technician programs in the College system.

A detailed analysis of KPI results found that, although students are very satisfied with the Pharmacy Technician program, some opportunities for improvement exist with regard to a) helping students develop their writing skills and b) provide opportunities for further education upon graduation.

It should be noted that, due to a timing issue, 2^{nd} year students were unable to complete the KPI survey in because they were out on placement. 2011/12 results are, therefore, based on the results from 1^{st} year students only who were surveyed in February 2012 but are consistent with those seen for the previous four years.

(See Appendices 9-13 for detailed Phase 2 documents.)

Phase 3 - Program Quality and Strategic Initiatives:

All courses in the Pharmacy Technician program have been assigned PLAR requirements and all core courses have learning plans. The program meets general education requirements with three courses: Active Citizenship, Human Relations, and a General Elective.

Many core courses in the program are currently web-facilitated using eLearn, meaning that students have access to online course resources. Faculty are investigating ways to move to a combination of web-enhanced courses (e.g. incorporating additional on-line content like videos, simulations, online testing, etc.) and a blended/hybrid learning environment (i.e. a combination of online and face-to-face delivery). At this point in time, the General Education elective course is offered in a blended format and the Communications course will be offered in an online format for qualifying students who do not require remedial supports. In the meantime, all professors in the program will use Grade Book in eLearn for quick and easily accessible sharing of results with students. With regard to feedback about a student's progress, the program standard is to return test/quizzes to students in

^{*%} of students with these risk factors has trended upward since 2009.

class for review within 1 week of the test date. The standard for returning assignments with comments or rubric is within 2 weeks of the due date.

(See Appendix 13 the Phase 3 Quality Processes document.)

Commendations

There are a number of areas that the Pharmacy Technician program demonstrated best practices and leadership. They are:

- As evidenced by program mapping, the Pharmacy Technician program meets or exceeds the MTCU Vocational Standards, CPTEA Outcomes, and NAPRA Competencies (Appendix 5)
- Mohawk graduates have a strong reputation in the community; more Mohawk graduates are employed full time in program related jobs as compared to the provincial average for Pharmacy Technician programs (Appendix 10).
- The program consistently achieves high student satisfaction KPIs and is regularly rated in the top 3 Pharmacy Technician provincially (Appendix 9).
- All full program professors are practicing pharmacists and maintain active involvement in direct patient care. All part time professors and teaching assistants also practice in the field.
- The program has a strong and active program advisory committee which is strongly representative of placement providers in the community (Appendix 7).
- Students have access to extensive, dedicated lab space that has current and up-to-date equipment and software applications. This environment supports the acquisition of practical, hands-on skills for the students.

Affirmations

Affirmations are declarations, which may/may not have evidence as a result of program review, that the program faculty identify are areas required to support program quality improvements. The areas identified include:

- Challenges with student retention over the past three years. There has been an increase in the number of
 students required to withdraw from the program and, therefore, a reduction in the number of successful
 graduates from the program. It should be noted that the Mohawk College Academic Grading and
 Promotion policy, which changed in 2009, has Mandatory Withdrawal policies and may have played a role
 in this retention issue.
- Anecdotally, noted through the focus group and student reports, some inconsistencies in the student experience occur during placement, especially in community pharmacies.
- Inter/intra professional collaboration, exposure to job opportunities in long term care, and pharmacy

management are areas which are not yet fully developed in the program. However, with regard to interprofessional collaboration, the Informatics and Communications courses have become interprofessional offerings beginning in Fall 2012 in the Pharmacy Technician, OTA/PTA, and CVT programs.

• Few related educational pathways exist for graduates; becoming a Pharmacist is not a direct pathway; requires much more schooling.

Recommendations

The detailed recommendations that evolved from each phase of program review are summarized below:

Accreditation

- Review and validate program links to the CPTEA outcomes and NAPRA competencies using a program team approach.
- Ensure core outcomes/competencies are being met at significant/very significant levels.

Curriculum

- Participate in Re-Thinking Assessment workshop
- Find ways to increase inter and intra professional learning opportunities.
- Explore opportunities to increase content related to long term care and pharmacy management.
- Change the way review courses (e.g. HSCI PM405 and HSCI PM406) are delivered to incorporate more peer-to-peer learning, discussion, and reflection, and also address professional practice issues. Explore the opportunity for this to become a blended course using discussion boards.
- Further investigate focus group feedback which indicated there may be a need to have a better integration
 of hospital courses and placements throughout program at times when students will retain relevant course
 learning. It should be noted that Mohawk's program of studies focuses on providing exposure to
 community and hospital theory throughout the program prior to the Semester 4 placements.
- Review the acquisition of math skills throughout the curriculum (i.e. where is it occurring; how is it occurring; is it occurring in the right way and at the right level?)

Placements

- Investigate ways to increase student exploration of long term care as an option for student placements/graduate employment
- Formalize the compilation of student placement feedback and develop a process to report findings back to placement partners.
- Review existing preceptor training from other programs to ascertain whether or not it can be adapted,
 especially for use with community pharmacies to ensure more consistent placement experiences across all

employers

 Collect the two week mid-placement evaluation from supervisor to review prior to site visit with employer/student

Retention/Recruitment

- Research retention and at-risk issues including
 - Correlation between student assessments/risk factors and grades in 1st semester
 - Correlation between program of choice applicants compared to those who applied to this as an alternative program and grades/retention in 1st semester
- Research and evaluate the impact of new admission requirements for ESL students
- Assess student math skills upon admission and the correlation to program to program success
 - o Evaluate math admission testing results (trending over several years, if available)
 - Correlation of low math assessment scores to student success in 1st and 2nd semesters
 - o Request results prior to or within the first few weeks of semester start
 - Monitor developments re: accreditation requirements for math grades (noted at Heads of Conference that 60% grade may not be 'good enough')
 - Compare program admission requirements across the system, particularly with regard to math courses/grades
- Analyze instructional design of 1st semester courses, especially HD001, PM102, and PM103
- Encourage increased use of available peer tutors by students who may need extra support to be successful

Pathways

- Distinguish and develop pathways in and out of the program:
 - Collaborate with School of Humanities and Social Sciences with regard to recruiting General Arts &
 Science and Pre-Health graduates who are motivated to work in allied health careers
 - o Target high schools with high skills majors in Health for recruitment opportunities of engaged students
 - Collaborate with Pathways Office to investigate undergraduate studies or industry courses as a
 pathway to position technician to take on more responsibility (for instance: technician manager, sales
 rep in pharmaceutical industry, insurance, etc.)
 - Collaborate with Pathways Office to investigate transfer credit options for graduates of the Pharmacy Technician program into degree programs (e.g. Athabasca, Laurier Brantford, Brock, etc.)

Competitive Activity

- Monitor competitive activity in light of:
 - Niagara's enrolment from Mohawk's catchment for Fall 2012

- o recent new program launches at Fleming, Sault, Georgian
- o a potential launch at Conestoga
- International cohorts
- Monitor competitive activity for Retail Assistant programs at Sheridan and Niagara (at present) and other college/private colleges
- Compare Pharmacy Technician program admission requirements across the system, particularly with regard to math courses/grades, as well as retention data as available

5 Year Program Quality Enhancement Action Plan

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Objectives	Action Strategies	Timelines	Responsibility	Status
Short Term (within the nex	t 18 months)			
Find ways to increase inter and intra professional learning outcomes	IPE deliveries of service courses (Informatics and communications).	IPE deliveries starting Fall 2012	AD , Coord	To assess Winter 2013 and repeat Fall2013
	Intra professional collaboration worked more into curriculum, taught more in theory and practiced on placements	Summer 2013 curriculum development	Coord , Faculty	
Formalize the compilation of student placement feedback and develop a process to report findings back to placement partners	Review/revise student feedback page to capture appropriate data/comments Compile previous years data from feedback page, student feedback on teaching and end of semester surveys Develop system to report compiled findings back to placement partners (face to face or via written report?)	Winter 2013 Summer 2013	Coord	
Review existing preceptor training from other	Collect and review from other programs, adapt and modify to	Review to start Summer	, AD , Coord	

programs to ascertain whether or not it can be adapted, especially for use with community pharmacies to ensure more consistent placement experiences across all employers	our program	2013 and to implement for Winter 2014 placements	Program Support – Allied Health & MRSc	
Collect the two week evaluation from placement supervisors to review prior to site visit with employer/student	Include expectation on evaluation forms for Winter 2013 placements	Winter 2013	, Coord	
Research and evaluate the impact of new admission requirements for ESL students	Look at number of students promoted or withdrawn after Sem 1, compare to previous years.	December 2012	, AD , Coord	Ongoing
	Review overall marks/class averages, compared to previous years. Assess if applicant numbers have changed (# ineligible based on new criteria? Filled all 40 spots in fall 2012?)		Admissions	
Evaluate math admission testing results, see trending over several years	Obtain and review math assessment results for past 3-5 years	Fall 2012	, AD , Coord (Results from Student Entrance Survey)	
Request math assessment results prior to or within the first few weeks of semester start	Obtain results, identify students at risk, encourage use of math centre, peer tutors, extra resources, etc	Fall 2012	, Coord (results from Student Entrance Survey)	Ongoing for each Sept intake
Determine if there is a correlation of low math assessment scores to student success in 1 st and 2 nd semesters	Compare math assessment results to pass rates for PM102 and PM202, look at individuals who failed for Fall 2012 intake Look at previous intakes to see if correlation.	Promotion meetings in December 2012 April 2013	, AD , Coord (results from Student Entrance Survey)	

Appraise student assessment practices across the program	Participate in Re-Thinking Assessment workshop	Spring 2013	Full & Part time Program professors/ instructors			
Encourage increased use of available peer tutors to students who may need extra support to be successful	Peer tutor and peer mentor pamphlets included in orientation package and on orientation discussion/power point. Continue to use individual mid semester progress reviews and class wide emails to encourage use Encourage all faculty to remind students of this service	Fall 2012	Coord	Ongoing		
Collaborate with School of Humanities and Social Sciences with regard to recruiting General Arts &Science and Pre-Health graduates who are motivated to work in allied health careers	Meeting of the ADs Informing grads/students of potential pathway	Fall 2012 prior to next application deadline	AD			
Target high schools with high skills majors in Health for recruitment opportunities of engaged students	Continue to work with the local boards to provide tour days and information for health sciences programs, highlighting pharmacy technician program	Ongoing	Dean , AD , Coord	ongoing		
Compare Pharmacy Technician program admission requirements across the system, particularly with regard to math courses/grades, as well as retention data as available	Obtain admission requirements from other community colleges and compare to our admission requirements	Fall 2012	AD , Coord IR	Ongoing to see if any changes		
Medium Term (within the r	Medium Term (within the next 18-36 months)					
Review and validate program links to the CPTEA outcomes and NAPRA	Review of matrix, mapping, and level of links.	Summer 2013 or Summer 2014	Coord Program faculty			

competencies using a program team approach. Ensure core outcomes/competencies are being met at significant/very significant levels.	Validate links by team approach, rather than assigned by individual.		and Curriculum Development Dept	
Change the way review courses (e.g. HSCI PM405 and HSCI PM406) are delivered to incorporate more peer-to-peer learning, discussion, and reflection, and also address professional practice issues. Explore the opportunity for this to become a blended course using discussion boards.	Faculty discussion, module/objective/activity changes, course outline changes, elearn delivery opportunities	Summer 2013 curriculum development Inplace for Winter 2014 courses	Coord	
Explore opportunities to increase content related to long term care pharmacies and pharmacy management	Develop LTC content to include in PM016 course (increase hours of course? POS change and course outline changes?) Review content in PM404 course (as well as PM016 and PM304)	Summer 2013 curriculum development Inplace for Winter 2014 courses	Coord	
Review the acquisition of math skills throughout the curriculum (i.e. where is it occurring; how is it occurring; is it occurring in the right way and at the right level?)	Faculty team discussion and review	Summer 2013 project	AD , Coord	
Correlation between student assessments/risk factors and grades in 1 st semester Correlation between program of choice applicants compared to those who applied to this as an alternative program and	Obtain data from admissions/registrar's areas and assessments for success Plot out students identified at risk with course marks for 2012 intake and past intakes Plot out students where PTech was not program of choice to	2012-2013	AD IR dept , Coord	

grades/retention in 1 st semester	their semester 1 course marks and retention, present and past intakes			
Monitor developments re: accreditation requirements for math grades (noted at Heads of Pharmacy Conference that 60% grade may not be 'good enough') Compare program admission requirements across the system, particularly with regard to math courses/grades		Start Winter 2013	Coord	
Collaborate with Pathways Office to investigate undergraduate studies or industry courses as a pathway to position technician to take on more responsibility (for instance: technician manager, sales rep in pharmaceutical industry, insurance, etc.) Collaborate with Pathways Office to investigate transfer credit options for graduates of the Pharmacy Technician program into degree programs (e.g. Athabasca, Laurier Brantford, Brock, etc.)	Identify existing pathways. Research potential pathways. Set up agreements or process for new opportunities. Develop communication plan (through program, through pathways office, on websites??)	2012-2013 Start discussions Sping 2013 Communicate existing options to grads Spring 2014 communicate existing and any new options to grads	AD	
Monitor competitive activity in light of recent new program launches at Fleming, Sault, Georgian and the potential launch at Conestoga	Review any new numbers/data from admissions/enrollment, determine if our applicant numbers affected, sites numbers affected, grad employment affected, etc.	Summer 2013 or Fall 2013 review	AD	Ongoing
Monitor competitive activity for Retail Assistant programs at Sheridan and Niagara (at present)	Review any new numbers/data from admissions/enrollment, determine how may affect our potential launch	Summer 2013 or Fall 2013 review	AD	Ongoing

Long Term (within the next 36-60 months)					
Further investigate focus group feedback which indicated there may be a need to have a better integration of hospital courses and placements throughout program at times when students will retain relevant course learning. It should be noted that Mohawk's program of studies focuses on providing exposure to community and hospital theory throughout the program prior to the Semester 4 placements.	Survey students completing semester 4 to validate need to change course placement in POS or develop some sort of review/tutorial prior to placements	Winter 2013 start to collect feedback	Coord		
Investigate ways to increase student exploration of long term care as an option for student placements/graduate employment	Discussion to include possible site visits, rotations, job shadowing opportunities	2013-2014	Coord, Advisory Committee		