

Undergraduate and Graduate Program Quality Assurance (QA) Review: 2020-2021

Faculty of Pharmacy and Pharmaceutical Sciences

Excerpted Report

Undergraduate Program Review

Programs: BSc Pharmacy; PharmD for Practicing Pharmacists; PharmD for BSc Pharmacy Students; Entry to Practice PharmD

Review Date: March 3-4, 2021

Reviewers: Dr. Cynthia Richard (Chair, Undergraduate), University of Waterloo; Dr. Hu Liu (Chair, Graduate), Memorial University of Newfoundland; Dr. Ryan Dunch (Internal Member), University of Alberta; Dr. Trudy Cardinal (FGSR Member), University of Alberta

Program Strengths

The Faculty of Pharmacy and Pharmaceutical Sciences at the University Alberta has transitioned its entry-level undergraduate degree from a BSc to a Doctor of Pharmacy (PharmD), with the first cohort scheduled to graduate from the new program in 2022. The program was carefully and thoughtfully designed, with excellent alignment within and across years of the program with intentional increase in complexity over time. Course streams are well described, with leads appointed to oversee each area. Diverse methods of teaching and assessment are utilized in courses, and instruction is delivered by a highly skilled complement of academic staff, including practicing pharmacists. Feedback on the program from students, preceptors, and external partners is strong; graduates are described as being confident and well-prepared for practice in Alberta.

Program Structure

<i>Recommendations</i>	<i>Response from the Faculty of Pharmacy and Pharmaceutical Sciences</i>
Incorporate Indigenous ways of knowing into course content through curriculum.	This is a priority area for our programs and faculty. We have begun with incorporation of content relating to Indigenous history and its connections to health in the BASE stream alongside traditional healing and medicines in

	Pharmacotherapy and Practice Skills streams. We are engaging in a process of faculty development that will start to address various aspects of EDI including Indigeneity with the aim of opening faculty up to being more inclusive globally in their courses (across all streams) and specifically with respect to Indigenous ways of knowing. Several faculty have already engaged in personal learning in EDI and further development will be offered. In particular, the work of the Truth and Reconciliation Committee Special Interest Group that is part of the Association of Faculties of Pharmacy of Canada, which brings together faculty from across the country to share and learn from each other, will be of great support for this recommendation.
Increase visibility and awareness of Indigenous aspects of the profession.	Plans for achieving this goal will begin with the incorporation of sessions led by Indigenous pharmacists (both related to Indigenous health and their individual practice settings/experiences) and will grow with the development plans noted above. For the experiential component of the program, preceptors serving Indigenous patient populations will be encouraged to promote this aspect of their placement experience within practice site descriptions and recruitment efforts will include further practice settings/preceptors to provide additional opportunities for students.
Formalize and clearly articulate the role of students and partner members on program committees, such as the Curriculum Committee.	This work has already taken place, with the Chair meeting with both the external members of the committee and the outgoing and incoming student representatives. The Terms of Reference and Roles and Responsibilities documents have been updated, with plans in place for annual review.
Create opportunities for hands-on learning for opportunities lost due to the pandemic.	These opportunities have been noted in our Curriculum Committee Parking Lot with appropriate follow up dates. All efforts will be made to offer students the opportunity to participate in missed laboratory experiences, with new/further practice experiences being co-developed with APSA for all cohorts.

Program Measures and Comparative Analysis

<i>Recommendations</i>	<i>Response from the Faculty of Pharmacy and Pharmaceutical Sciences</i>
Work alongside partner organizations such as RxA and ACP to continue to promote pharmacy as an attractive profession.	The number of students applying to the program remains high and the degree and profession currently remain attractive and this is being monitored closely. In recent years, the Faculty has officially established RxA and ACP membership on the Curriculum Committee. This relationship offers opportunities for 2-way communication about issues facing the program and

	<p>the profession. Quarterly meetings with the Dean, CEO of RxA, and the Registrar of ACP have been re-established and these meetings will be used to identify other opportunities for collaboration. For example, the Faculty could look to incorporate RxA and ACP representation in our recruitment activities like when we visit the Faculty of Science and the university's annual career fair.</p> <p>We are now working with ACP on a joint program for internationally educated pharmacy graduates which will increase cross fertilization into other programs. ACP and RxA also have a seat at the table for our admissions program. Outreach into the community in junior high and high schools might be something we can all focus on for the betterment of the professional pipeline.</p>
Re-introduce CSL or add other experiential training opportunities to match the number of weeks provided by comparable programs.	In the coming academic year, both BASE 5 and BASE 6 will include work-integrated learning opportunities including support from UA CSL in BASE 5 and partnerships with practicing pharmacists/businesses in BASE 6. The Curriculum Committee is committed to the provision of additional early exposure experiences that will frame professional identity development and revisit the potential for formal CSL experiences.

Teaching and Learning Environment

<i>Recommendations</i>	<i>Response from the Faculty of Pharmacy and Pharmaceutical Sciences</i>
Establish a renewed strategy for interprofessional education with dedicated support personnel.	We continue to collaborate with the health disciplines who are interested in the delivery of IPE (foundations of collaboration and elective experiences) and will be fully supportive of a renewed model under the College structure. If our Exceptional Tuition Increase (ETI) proposal is successful, this will provide the opportunity to dedicate additional resources to support interprofessional education.
Provide support for teaching with the use of graduate Teaching Assistants.	The Faculty is looking to establish new teaching development opportunities for graduate students in the PharmD program that build off of graduate student knowledge and skills and graduate training. Faculty members are being asked to create opportunities for actual teaching opportunities in the courses they teach as a way to provide highly relevant teaching experience that goes beyond providing basic operational support. Additional opportunities to support teaching with the use of graduate TAs will be re-evaluated.

<p>Provide adequate individual feedback to students, and inform instructors of GFC requirements to make sample or representative assessment materials accessible to students.</p>	<p>Individual feedback is an area of concern that we are looking to acquire additional resources to support. The Faculty has heard from students that tailored information about strengths and weaknesses is a priority area of concern. In the Faculty's ETI proposal, the Faculty is seeking financial support to get licenses to software that would allow instructors to tag exam questions to major areas of content and skill. Once exam questions are tagged, individualized reports of performance relative to average student performance can be created. This level of reporting also requires human resources to sustain. This is an area we will continue to prioritize for improvement moving forward. The Faculty will also make an effort to remind and provide professional development for Faculty members about how to provide sample assessment materials.</p>
<p>Create opportunities for writing in the curriculum.</p>	<p>Some Faculty members have identified a lack of marking support as a barrier to implementing writing assignments in the curriculum. We will undertake an evaluation of the status of the presence of writing assignments and how they can be supported more readily including determining if target marking support (e.g., through graduate TAs) can be provided in areas of need.</p>
<p>Provide opportunities for undergraduate students to participate in research to generate interest in graduate studies.</p>	<p>Opportunities through the Directed Project and Research course and summer employment will continue to be offered. Interest may also be piqued through the APSA-led career series where professors are able to share their professional development journey. The use of Pharm 498 Research and Directed Studies to meet elective needs is also ramping up with the implementation of the new PharmD. More students taking this course has the potential to drive undergraduate students into the graduate programs.</p>
<p>Nominate those demonstrating excellence in teaching for teaching awards to recognize the value of their work.</p>	<p>The Faculty is taking real steps towards addressing this issue already. The Faculty paused our regular teaching award process at the end of 2020 due to the pandemic. In 2021, it was brought back but revised to expand the number of awards that are given out for excellent teaching. Whereas prior to 2020, the award was given to one instructor in the program and was only voted on by 4th years, teaching awards are now given in each of years 1 - 3 of the didactic program. The first of these awards were given out in May of 2021 to three individuals, two of which who had not received the award yet. Opportunities for nominating instructors for awards through the Association of Faculties of Pharmacy of Canada as well as university teaching awards will be encouraged and supported.</p>

Student Experience

No recommendations provided.

Faculty Profile

<i>Recommendations</i>	<i>Response from the Faculty of Pharmacy and Pharmaceutical Sciences</i>
Promote a culture that allows for collegial governance, open communication, and academic debate.	Opportunities to improve communication and collegial governance are a priority. The monthly Academic Staff Meetings (ASM) are now chaired by the Dean and used as a forum for communication and discussion. Academic staff are invited to add agenda items and other partners or stakeholders (e.g., HR, Library, Faculty relations) are invited to ASM to share information and gather input. Faculty Council meetings have been restructured to model GFC meetings. Documentation to support agenda items are added 1 week in advance to provide opportunity for academic staff to prepare. A question period has been added to the agenda to further academic debate.
Provide opportunities for job security and career advancement for ATS.	Full time ATS members progress through the ranks from assistant to full professor and after 9 years they are given career status (this is University wide). We have a well-defined promotion process for ATS. There are 4 ATS members currently serving as assistant Deans to provide career enhancement. In addition, the Faculty has supported opportunities for further education (e.g., Masters or Doctorates) or training (e.g., Foundations of Clinical Research certificate) for ATS. Support has been financial and/or academic in terms of teaching release. In terms of job security, longer contracts will be offered to ATS, based on years of experience and performance.
Establish a system for predictable and regular rotations in academic leadership positions.	Historically, the Dean has been allowed to choose academic leaders and make changes during their term. The Faculty is waiting for recommendations from the academic leaders task group to inform any changes to academic leadership positions. This will also provide the opportunity to examine best practices in other Faculties to establish a system for predictable and regular rotations, as well as use an EDI lens.

<p>Prioritize hiring of Indigenous and female faculty when the opportunity arises for new hiring.</p>	<p>Equity, diversity and indigeneity are of paramount importance. There is gender equality in combined ATS and Tenure track faculty, however it is acknowledged that the Faculty has fewer female tenure track faculty. The Faculty's EDI committee is working to establish policies and procedures to ensure diversity is a key factor in all future hires and we are currently prioritizing the hire of an Indigenous and/or Black academic staff member with expertise in health systems inequities as laid out in our ETI proposal.</p>
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Program Environment

<i>Recommendation</i>	<i>Response from the Faculty of Pharmacy and Pharmaceutical Sciences</i>
<p>Maintain transparency as the situation continues to evolve with regards to the university's budget and potential impacts on staff roles.</p>	<p>Transparency regarding budget and impact on staff roles is a priority and will be communicated in a timely fashion. With the soon-to-be hire of a Faculty General Manager, the Faculty will be in a better position to establish priorities, with the input of academic staff, and assign budget to these priorities.</p>

Graduate Program Review

Programs: MSc; PhD

Review Date: March 3-4, 2021

Reviewers: Dr. Hu Liu (Chair, Graduate), Memorial University of Newfoundland; Dr. Cynthia Richard (Chair, Undergraduate), University of Waterloo; Dr. Ryan Dunch (Internal Member), University of Alberta; Dr. Trudy Cardinal (FGSR Member), University of Alberta

Program Strengths

The Faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta was the first pharmacy school in Canada to establish graduate programs. The Faculty's research and graduate program in pharmaceutical sciences has been consistently ranked as one of Canada's top pharmacy schools. A group of expert faculty has maintained the research excellence with a track record of strong research output. The Faculty and the cognate academic units on the University of Alberta campus are housing Canada's best research facilities, which provides excellent opportunities for conducting new collaborations in interdisciplinary health sciences research. The Faculty developed a well-defined graduate program of study that balances coursework with research requirements. The program

serves society very well by educating highly qualified personnel. Many of them work in academic institutions in Canada and around the world. Others work in the pharmaceutical industry, including multi-national and biotechnology companies. Some of them also work for regulatory agencies around the world to safeguard the drug-utilization. The Faculty also contributes to diversifying Alberta's economy and creating employment opportunities for young people. While maintaining the high-quality graduate program in pharmaceutical sciences in the last five years, the Faculty also fosters a growing area of study that involves pharmacy practice research. Topics including HIV treatments, therapeutic drug monitoring, patient-centered health, and age-related pharmacy practice research are being developed in this field. There are ongoing research projects to address issues related to Indigenous health. Some of those faculty members are emerging as national leaders in the respective areas.

Teaching and Learning Environment

<i>Recommendations</i>	<i>Response from the Faculty of Pharmacy and Pharmaceutical Sciences</i>	<i>Response from the Faculty of Graduate Studies and Research</i>
Develop more in-house graduate-level courses in Pharmacy Practice.	We are currently working with Faculty members to develop graduate-level courses for graduate students in Pharmacy Practice. Again this is part of our FoPPS strategic planning. In addition, graduate courses are undergoing a standardized review process that will involve the graduate studies committee interfacing with the curriculum committee.	This is within the purview of the academic unit.
PhD students who have completed a master's degree should take a minimum of 3 graduate-level courses (9 credits), one of which should be offered by other academic units.	Actually, we are in the middle of the pack in comparison to other PhD programs in Pharmacy in Canada. Again the minimum requirement is 6 credits (equivalent to one course per semester) for the student who has completed an MSc degree. Students admitted to the PhD program are required to take 12 course credits, however, the supervisor along with the supervisory committee can request reduction to 6 credits and this will require graduate studies committee approval.	Changes to approved graduate programs are within the purview of the academic unit and need to follow established university consultation and governance approval processes. The approval to seek a reduction in required course credits must be submitted to the FGSR and approved as part of a student's official program of record.

Create co-op research opportunities in the pharmaceutical industry for graduate students.	**Currently we do have this opportunity through Applied Pharmaceutical Innovation. However, we will discuss this at the Faculty level to see if there is more interest in developing a co-op research opportunities in the pharmaceutical industry.	Graduate students may consider seeking placements through the FGSR Graduate Student Internship Program although they are not part of the student's official academic program.
Ensure that the Graduate Studies Committee meets regularly and fulfils its management role in the program, with the participation of graduate student members.	The Graduate Studies Committee meets based on available agenda items and the minutes will be posted on the google drive. In addition we have a graduate student representation on the graduate studies committee as a standing member (selected by the Pharmacy Graduate Students' Association).	This is within the purview of the academic unit.

Student Experience

<i>Recommendations</i>	<i>Response from the Faculty of Pharmacy and Pharmaceutical Sciences</i>	<i>Response from the Faculty of Graduate Studies and Research</i>
Continue to build on existing opportunities for teaching experience in courses and labs, including MSc and PhD students.	*We have established a sub-committee of the Graduate Studies Committee to explore teaching experience in collaboration with the University Teaching Services and will look to make improvements in this regard moving forward.	This is within the purview of the academic unit. Students can seek experience as instructors through the FGSR's Graduate Teaching and Learning Program.
Continue to focus on additional recruitment of domestic graduate students building on processes in place to attend to EDI principals and ongoing response to the TRC.	Domestic student recruitment is part of FoPPS strategic planning and currently 50% of our MSc are domestic students. For this purpose the FoPPS started the FoPPS Entrance scholarship for highly qualified applicants. In addition the faculty provides more financial support to attract domestic students.	This is within the purview of the academic unit.
Increase student satisfaction in the program by engaging in a creative process designed to:	For a*, b**, and c*, please see the above two responses.	f: Graduate students can also seek information and support through FGSR to manage supervisory

<ul style="list-style-type: none"> a. Make TAs selection process more transparent. b. Create more co-op research activities in pharmaceutical companies, more network opportunities c. Provide more opportunities to participate in undergraduate teaching d. Help new students' loneliness caused by Pandemic e. Offer diverse orientation sessions and experiences for new students f. Let students know where to go if there is a conflict with the supervisor 	<p>d: we held at least 3 meeting with graduate students during pandemic to address any concern that they may have during this pandemic</p> <p>e: we do offer an orientation every year to new graduate students; a refresher orientation is also proposed to provide existing students with updated information on the graduate program.</p> <p>f: actually this section about supervisor student conflict is addressed during the orientation and we will reiterate with further communication</p>	<p>conflicts. The new supervisory proposals moving through the consultation and governance approvals at the university will help to establish strong working relationships between graduate students and supervisors through regularly scheduled progress reports and the completion of the Student-Supervisor-Guidelines. Both proposals formalize existing requirements for regular progress meetings and the initial "check-list" meeting when a student begins their graduate program.</p>
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Faculty and Supervision

<i>Recommendations</i>	<i>Response from the Faculty of Pharmacy and Pharmaceutical Sciences</i>	<i>Response from the Faculty of Graduate Studies and Research</i>
<p>Creative solutions to support graduate students' desire and need to have teaching experience for future career success are needed. This will also help current faculty's willingness to continue teaching and assessing ways that create</p>	<p>We totally agree with this recommendation and again this is part of FoPPS strategic planning. A subcommittee of the Graduate Studies Committee has a draft plan tentatively entitled "Training Program on Teaching" to create a</p>	<p>FGSR offers the Graduate Teaching and Learning Program that includes four discrete levels. Levels 1 and 2 can be taken for credit towards the Professional Development requirement.</p>

the success that has been the norm.	formalized venue for graduate students to acquire teaching experience and skills.	
Clarify and strengthen written guidelines for the graduate program, in particular guidelines for the path to candidacy and conduct of the candidacy examination in the PhD program.	This is part of our graduate student handbook. However, we will increase awareness about the examination process. Currently, the candidacy exam is being formalized with two options, which will be selected by the student upon consultation with the student's supervisory committee.	FGSR is working to revise, update, and clarify institutional policies in the Calendar on candidacy and PhD final examinations, This work is set to start in Fall 2021 and be ongoing for the upcoming academic year. Consultation and approvals will follow the university's established governance pathways.

Resources

<i>Recommendations</i>	<i>Response by the Faculty of Pharmacy and Pharmaceutical Sciences</i>	<i>Response from the Faculty of Graduate Studies and Research</i>
Creative solutions to create more opportunities for graduate assistantships and teaching assistantships.	We agree with this recommendation which is consistent with our FoPPS strategic plan. We will be revisiting progress on objectives and strategies related to graduate studies in our strategic plan. Please also see "Creative solutions..." above.	This is within the purview of the academic unit.
Ongoing efforts to increase the transparency of TAsnip selection process.	At the current time, we have limited TAsnip opportunities in two areas only, which are pharmaceuticals and pharmacy practice labs. However, there are some key requirements for the paid TAsnip, for example, a pharmacy background is required for pharmacy practice labs and student communications skills; relevant pharmaceuticals experience is also needed for the TAsnip in pharmaceuticals. Since these opportunities are limited, we have opted to develop the "Training Program on Teaching." and are looking to formalize having graduate students support supervisor with teaching appropriate lectures in the undergraduate	This is within the purview of the academic unit.

	<p>program when possible. Additional opportunities to support teaching with the use of graduate TAs will be re-evaluated.</p>	
<p>Define and publicize a basic funding package for incoming and potential graduate students.</p>	<p>The Graduate Studies Committee is working to update and finalize the basic funding for incoming and potential graduate students to add to the online Graduate Student Handbook. This information will be available to current and prospective students. It should go live by the end of October. The information described regarding the FoPPS Entrance scholarship (above) will also be publicized.</p>	<p>This is within the purview of the academic unit.</p>