The following Motions and Documents were considered by the GFC Academic Planning Committee at its Wednesday, October 21, 2015 meeting:

Agenda Title: **Proposal for a Doctor of Pharmacy (PharmD) program, Faculty of Pharmacy and Pharmaceutical Sciences**

CARRIED MOTION: THAT the GFC Academic Planning Committee approve, under delegated authority from General Faculties Council, the proposed Doctor of Pharmacy (PharmD), as submitted by the Faculty of Pharmacy and Pharmaceutical Sciences, and as set forth in Attachment 1, to be effective upon approval.

Final Item: 4

UNIVERSITY OF ALBERTA
UNIVERSITY GOVERNANCE

FINAL   Item No. 4

OUTLINE OF ISSUE

Agenda Title: **Proposal for a Doctor of Pharmacy (PharmD) program, Faculty of Pharmacy and Pharmaceutical Sciences**

Motion: THAT the GFC Academic Planning Committee approve, under delegated authority from the General Faculties Council, the proposed Doctor of Pharmacy (PharmD) as submitted by the Faculty of Pharmacy and Pharmaceutical Sciences and as set forth in Attachment 1, to be effective upon approval.

Item

Action Requested	☒Approval ☐Recommendation ☐Discussion/Advice ☐Information
Proposed by	Faculty of Pharmacy and Pharmaceutical Sciences
Presenter	James Kehrer, Dean, Faculty of Pharmacy and Pharmaceutical Sciences Terri Schindel, Associate Dean (Undergraduate Programs), Faculty of Pharmacy and Pharmaceutical Sciences
Subject	Proposed Doctor of Pharmacy (PharmD), Faculty of Pharmacy and Pharmaceutical Sciences

Details

Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (please be specific)	To offer the proposed (new) undergraduate Doctor of Pharmacy (PharmD) program as set out in Attachment 1 and 2.
The Impact of the Proposal is	Refer to the Proposal (Attachment 1 and 2).
Replaces/Revises (eg, policies, resolutions)	BSc in Pharmacy program
Timeline/Implementation Date	September 2017
Estimated Cost	N/A
Sources of Funding	N/A
Notes	<internal use only>

Alignment/Compliance

Alignment with Guiding Documents	Dare to Deliver, Dare to Discover; Comprehensive Institutional Plan 2015 (Page 92)
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	1. **Post-Secondary Learning Act (PSLA)**: The *PSLA* gives GFC responsibility, subject to the authority of the Board of Governors, over academic affairs (Section 26(1)).
	2. **PSLA**: GFC may make recommendations to the Board of Governors on a number of matters including the budget and academic planning (Section 26(1)(o). GFC delegates its power to recommend to the Board n the budget and on new or revised academic programs to the GFC Academic Planning Committee (APC).
	3. **PSLA**: The PSLA give Faculty Councils power to "Provide for the admission of students to the faculty" (Section 29(1)(c)).
	4. **PSLA**: The *PSLA* gives Faculty Councils the authority to "determine the programs of study for which the faculty is established" (Section 29(1)(a)); to "provide for the admission of students to a faculty" (Section 29(1)(c)); and to "determine the conditions under which a student must withdraw from or may continue the student's program of studies in a faculty" (Section 29(a)(d)).

	GFC ACADEMIC PLANNING COMMITTEE
UNIVERSITY OF ALBERTA UNIVERSITY GOVERNANCE	For the Meeting of October 21, 2015

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5. **UAPPOL Admissions Policy**: "Admission to the University of Alberta is based on documented academic criteria established by individual Faculties and approved by GFC. These criteria may be defined in areas such as subject requirements, minimum entrance averages, and language proficiency requirements. In addition to academic requirements for admission, GFC authorizes each Faculty to establish such other reasonable criteria for admission of applicants as the Faculty may consider appropriate to its programs of study, subject to the approval of GFC (e.g. interview, audition, portfolio, etc.)

The admission requirements for any Faculty will be those approved by GFC as set forth in the current edition of the University Calendar. In addition to the admission requirements, selection criteria for quota programs, where they exist, will also be published in the current edition of the University Calendar.

The responsibility for admission decisions will be vested in the Faculty Admission Committees or in the Deans of the respective Faculties, as the councils of such Faculties will determine."

6. **GFC Academic Standards Committee (ASC) Terms of Reference (Mandate)**: The Office of the Provost and Vice-President (Academic) has determined that the proposed changes are substantial in nature. ASC's terms of reference provide that "the term 'substantial' refers to proposals which involve or affect more than one Faculty or unit; are part of a proposal for a new program; are likely to have a financial impact; represent a definite departure from current policy; involve a quota; articulate a new academic concept" (3.A.ii).

Further, "ASC provides advice or recommends to the GFC Academic Planning Committee (APC) on proposals which involve substantial change to admission/transfer regulations or academic standing." (3.B.iv)

7. **GFC APC's Terms of Reference (Mandate):** GFC delegated the following to GFC APC, the Provost and Vice-President (Academic) and the Dean of FGSR:
"Existing Undergraduate and Graduate Programs:
-Extension and/or Substantive Revision of Existing Programs
 -Revisions to or Extension of Existing Degree Designations

 All proposals for major changes to existing undergraduate and graduate programs (eg, new degree designation, new curriculum) shall be submitted to the Provost and Vice-President (Academic). […]
 The Provost and Vice-President (Academic), after consultation with relevant Offices, committees or advisors[,] will place the proposal before APC. APC has the final authority to approve such proposals unless, in the opinion of the Provost and Vice-President (Academic), the proposal should be forwarded to GFC with an attendant recommendation from APC. […]" (3.13)

	(Mandate/Establishment/Termination of Academic Programs): "NOTE: APC deals with major program matters; minor program matters are dealt with through the GFC-mandated course/program approval process. The Provost and Vice-President (Academic) decides what is major or minor. a. To approve the establishment of new academic programs at the University of Alberta or those administer 8. *PSLA* **Program of Study Regulation**: Application for approval. 2. The following must apply for approval, in the form required by the Minister: (a) a public post-secondary institution that proposes to establish, extend, expand, reduce, suspend, terminate or transfer a degree program or a diploma or certificate program offered or to be offered in Alberta 9. *PSLA*: "The Campus Alberta Quality Council may inquire into and review any matter relating to a proposal to offer a program of study leading to the granting of an applied, baccalaureate, master's or doctoral degree other than a degree in divinity." (Section 109(1))

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	Refer to Appendices G, H, I and M.
Approval Route (Governance) (including meeting dates)	Faculty of Pharmacy and Pharmaceutical Sciences Faculty Council (June 12, 2015) GFC Academic Standards Committee (September, 17, 2015) GFC Academic Planning Committee (October 21, 2015)
Final Approver	GFC Academic Planning Committee (October 21, 2015)

Attachments:

1. Attachment 1 (pages 1-264): New Degree Proposal: Part A: System Coordination Review ; New Degree Proposal: Part B: Campus Alberta Quality Council Review; Appendices A-M

Prepared by: Kate Peters, Office of the Provost and Vice-President (Academic)

Revised: 10/14/2015

![Alberta Enterprise and Advanced Education]

New Degree Proposal Template
(Part A: System Coordination Review)

The following template outlines the information required by Advanced Education and Technology to support System Coordination Review, the first of the two stages in the review process for new degree programs and new specializations in existing degree programs. Completed templates are to be submitted electronically through the ministry's Program and Provider Registry System.

The guiding premise of System Coordination Review is to ensure that the program adds value to Campus Alberta. This stage of review will focus on the institution's assessment of student and employer demand; the situation of the program in the context of Campus Alberta; and the financial viability of the program, including implications for students and taxpayers.

Given a positive outcome from System Coordination Review, the proposed program will be recommended to the Minster for referral to Campus Alberta Quality Council for quality assessment, the second stage of review. Please refer to the council's publication, CAQC Handbook: Quality Assessment and Assurance, for further information. This publication is available on the Council's website http://caqc.gov.ab.ca .

Basic Information

Institution	**University of Alberta**
Program/specialization title	**Doctor of Pharmacy**
Credential awarded	**Doctor of Pharmacy (PharmD)**
Proposed Implementation Date	**September 2017**

SECTION 1: PROGRAM OVERVIEW

1.1 Type of Initiative

The Doctor of Pharmacy (PharmD) is a clinical undergraduate degree. This degree is the new standard for professional education in pharmacy. The proposed program will replace the current BSc in Pharmacy degree. The PharmD degree is currently offered by the University of Alberta but only as a program for practicing pharmacists.

The PharmD was first awarded in the USA in 1915 for four years of study, but was discontinued in 1938. The degree reappeared in 1948 as a six year degree program (two years of pre-pharmacy plus four years of pharmacy; similar to today) and in 1950, the University of Southern California was the first school to award the PharmD as the sole pharmacy practice degree. In the 1980s, an increasing number of schools began implementing the PharmD similar to the University of Southern California model.

The change to a PharmD credential accelerated in 1992 when the Accreditation Council for Pharmacy Education required that all accredited pharmacy schools in the USA offer only the PharmD degree by the year 2000. The Association of Faculties of Pharmacy of Canada and the Deans of Pharmacy agreed in 2010 to implement the PharmD degree by 2020 in all Canadian pharmacy schools. To date, five of the 10 schools of pharmacy in Canada have implemented PharmD programs (Toronto, Waterloo, Quebec, Laval and UBC), and all others are on schedule to meet the 2020 target. With the adoption of the PharmD degree as the new standard for pharmacy education in North America, replacing the existing BSc in Pharmacy program is a critical necessity to better prepare students for today's scope of pharmacy practice and to offer the best educational experience for students in Alberta.

1.2 Program Description

Provide a brief (1-2 paragraphs) description of the program, summarizing its intended purpose, curriculum design, and methods of delivery and highlighting distinctive attributes. Attach as an Appendix a complete list of courses, including credit values, instructional hours and brief (calendar style) course descriptions. For elective options, specify course selection parameters. Identify new courses to be developed for this program.

The goal of the PharmD program is to graduate competent and confident practitioners prepared to enter pharmacy practice. The proposed PharmD program involves a combination of course work and supervised clinical experiential activities through the Faculty of Pharmacy and Pharmaceutical Sciences following the completion of a minimum of two years of pre-professional university/college-level course work defined by the Faculty. The length of the program is unchanged from the current BSc in Pharmacy program (both are 4 years). However, the prerequisite course work for entry into the program is increased from one to two years. The change in prerequisite coursework allows major changes to the curriculum during the four year pharmacy program. In particular, there will be increased clinical experiences throughout the program that meet Canadian and international accreditation standards for the PharmD degree. It is also noteworthy that, in 2013, 95% of the students admitted to the pharmacy program had more than one year of pre-pharmacy course work and over 30% had a prior degree.

This proposal addresses three audiences for the PharmD degree: (1) new students entering the program, (2) students enrolled in the BSc in Pharmacy program at the time the PharmD program commences, and (3) practicing pharmacists, including internationally trained pharmacists (refer to Table 1.2 PharmD Degree Audiences). Following implementation of the PharmD program, an option will be offered to students then enrolled in the BSc in Pharmacy program to obtain the PharmD degree without a delay in graduation. Thus, there will be the same number of graduates each year during implementation of the program.

The PharmD for Practicing Pharmacists program, approved in October 2011, addresses the needs of practicing pharmacists. The PharmD for Practicing Pharmacists program will be offered to practicing pharmacists until demand diminishes (estimated to be about 10 years after the proposed PharmD program begins).

Although all core courses in the PharmD program are new and are being developed for the program, the proposed PharmD program combines aspects of two existing University of Alberta programs: BSc

in Pharmacy and PharmD for Practicing Pharmacists. Electives will be a combination of existing and new courses.

Table 1.2 PharmD Degree Audiences

	(Proposed) PharmD	**PharmD for BSc in Pharmacy Students**	**PharmD for Practicing Pharmacists (Implemented in 2013)**
Admission Requirements	2 years pre-pharmacy	After Year 3, BSc	BSc Pharm
Pharmacy Degree(s)	PharmD	PharmD	BSc Pharm, PharmD
Length of program	4 years	4 Years (+1 term)	2-5 years (part time)
Courses (Credits)	98	97 (84 BSc)	18
Options (Credits)	0	0	0
Electives (Credits)	3*	3*	0
Practice Experiences (Weeks/Credits)	40	40 (22 BSc)	36* *Prior Learning Assessment up to 18

See appendices for further detail about the proposed program:
Appendix A: Program Goals, Outcomes and Courses
Appendix B: Program and Course Overviews
Appendix C: PharmD for BSc in Pharmacy Students
Appendix D: Proposed Calendar Content

1.3 Enrolment Plan

Include assumptions and explanatory notes (e.g., attrition, part-time enrolment). Also:
- *If program implementation will occur over a number of years, provide data for each year to full implementation.*
- *If internal reallocation of existing resources is proposed, describe any anticipated decrease in enrolment in other programs that would result.*

Proposed Enrolment	Year 1 2017-18	Year 2 2018-19	Year 3 2019-20	Year 4 2020-21	Annual Ongoing
Total head count	131	231	389	515	515
• Full-Time Year 1	131	131	131	131	131
• Full-Time Year 2	0	130	130	130	130
• Full-Time Year 3	0	0	128	128	128
• Full-Time Year 4	0	0	0	126	126
Total FLE	131	231	389	515	515
• FLE Year 1	131	131	131	131	131
• FLE Year 2	0	130	130	130	130
• FLE Year 3	0	0	128	128	128
• FLE Year 4	0	0	0	126	126
Anticipated No. of Graduates	NA	NA	NA	126	126

The enrolment plan is unchanged from the current BSc program.

SECTION 2: DEMAND

2.1 Student Demand Analysis

Analysis should be supported by relevant data for the region and for Campus Alberta, as might be derived from: systematic questionnaire surveys of target audiences; application and enrolment summaries and trends for similar programs currently offered by other institutions; tabulations of unsolicited student inquiries and/or expressions of interest obtained at student recruitment events; demographic projections for relevant sub-populations.

The University of Alberta Faculty of Pharmacy and Pharmaceutical Sciences is the only pharmacy program in Alberta. It began 101 years ago (1914) and is fully accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP). The Faculty currently enrolls 131 student pharmacists per year and educates about 55 graduate students. Enrollment will not change with the proposed PharmD program.

Pharmacy is an attractive career and competition for entry into the program is intense. In 2013, the average GPA of the 131 students accepted was 3.66/4. The applicant number to the professional pharmacy program has been very strong and relatively constant for the past seven years ranging from 502 to 625 with 511 this last year (2015).

Based on the experience at other pharmacy schools in Canada, particularly the University of British Columbia and the University of Toronto, student demand for the PharmD degree program is anticipated to increase relative to the BSc program. Accreditation standards for the PharmD degree in Canada were introduced in 2014. Program evaluation data from the Faculty of Pharmacy and Pharmaceutical Sciences Graduating Students Survey indicates strong interest in PharmD education at the University of Alberta; 27 and 34 percent of 2014 and 2015 grads, respectively, are considering furthering their pharmacy education at the University of Alberta. (Cor, Ken. 2015. "2013-2014 Program Assessment Results Overview." Presentation at Faculty of Pharmacy and Pharmaceutical Sciences Faculty Council, Edmonton, AB.)

The University of Montreal was the first to offer the PharmD degree in 2007 (Table 2.1). Today, half of the pharmacy programs in Canada, including the University of Toronto, University of Waterloo, University of British Columbia, University of Montreal, and Laval University offer PharmD programs for all students. The other pharmacy schools in Canada plan to implement programs in 2016-2018.

Table 2.1 Doctor of Pharmacy (PharmD) programs in Canada

Faculty/School of Pharmacy	PharmD Implemented	Proposed Implementation
British Columbia	2015	
Alberta		2017
Saskatchewan		2017
Manitoba		2018
Toronto	2011	
Waterloo	2011	
Montreal	2007	
Laval	2009	
Dalhousie		2016
Memorial		2017

2.2 Labour Market Analysis

Analysis should be supported by relevant data and placed in the context of the target occupational/regional labour market(s). Relevant data sources include systematic surveys of prospective employers; occupational supply/demand projections from government or industry sources; tabulations of job postings/'help wanted' advertising; surveys of recruitment and graduate employment rates of similar programs; and demographic projections (i.e. for relevant regions and sub-populations.) Describe anticipated employment outcomes.

The most recent employment data from the Canadian Institute for Health Information (https://secure.cihi.ca/free_products/PharmacistWorkforce2012HighlightsEN.pdf) shows that 76.7% of pharmacists employed in Alberta completed their pharmacy education at the University of Alberta while 15% completed their pharmacy education in Saskatchewan. Just over 8% of the pharmacy workforce is international graduates, although this percentage is increasing (see Table 2.2).
Based on *Alberta's Short Term Employment Forecast 2014-2016*, pharmacists are included among the moderately high demand occupations (http://work.alberta.ca/documents/short-term-employment-forecast.pdf). There is a continued need for pharmacists in Alberta according to Alberta College of Pharmacists data (https://pharmacists.ab.ca/sites/default/files/ACP_AnnualReport_2015.pdf). The current balance in pharmacist supply and demand in the province has been achieved partially through

University of Alberta graduates, mobility of pharmacists from other provinces and licensure of foreign trained pharmacists over that past several years (Table 2.2). Effective May 1, 2014, the federal skilled worker program removed immigrant pharmacist applications from the immigration preferred list. Overall, the future demand for pharmacists in Alberta is expected to increase. However, recent regulation of pharmacist technicians may impact the demand for pharmacists. At the current time, an increase in enrollment to the University of Alberta program is not proposed.

Table 2.2 New Pharmacist licenses granted in Alberta

Year	University of Alberta	Other Canadian Universities	Pharmacists from other Provinces	International	Total
2014	124	25	90	121	360
2013	113	35	59	86	293
2012	119	26	60	101	306
2011	121	16	53	55	245
2010	118	22	32	64	236
2009	122	27	31	67	247

Reference: https://pharmacists.ab.ca/sites/default/files/ACP_AnnualReport_2015.pdf

2.3 Support

Provide evidence of consultation with and approval/support from relevant professional organizations, regulatory bodies, advisory committees, employers, and/or industry.

A Steering Committee (Appendix E), formed in 2012, guided development of the PharmD program. The committee was comprised of student pharmacists, faculty members from both divisions at the Faculty of Pharmacy and Pharmaceutical Sciences (Pharmacy Practice and Pharmaceutical Sciences) and professional organizations (Alberta College of Pharmacists, Alberta Pharmacists Association). Consultations with professional organizations, regulatory bodies, employers and the practice community were accomplished through meetings with the Dean's Advisory Council, the Pharmacy Executive Collaborative (that includes representatives from the Alberta College of Pharmacists, Alberta Pharmacists Association, Alberta Health Services, and the Faculty) and pharmacy leadership at Alberta Health Services and Covenant Health. Discussions with pharmacy educators planning similar programs in Canada, and with the accreditation organization (Canadian Council for Accreditation of Pharmacy Programs (CCAPP)), were ongoing throughout the development process.

Letters of support from the various stakeholders are included in Appendix F.

2.4 Clinical or Work Experience

If clinical or work experience is an essential part of program delivery:

2.4.1 *Provide evidence that the placements will be available when needed.*

Clinical experience is an essential part of program delivery for the PharmD program. This aspect represents a significant change from the BSc in Pharmacy program. The amount of time in the curriculum devoted to clinical experiences will increase from 22 weeks in the BSc in Pharmacy degree

to 40 weeks in the PharmD degree. The Faculty of Pharmacy and Pharmaceutical Sciences worked closely with pharmacy organizations during the development of the PharmD for Practicing Pharmacists program in 2011. The relationship and level of collaboration were further enhanced as we created the current PharmD program. Extensive consultations with Alberta Health Services and Covenant Health pharmacy leadership, as well as community pharmacists, were undertaken to plan for the additional clinical experiences required for the proposed PharmD program. The Faculty contributes to a national special interest group, Pharmacy Experiential Programs of Canada (PEP-C), on a number of initiatives related to the future of experiential education in Canada (http://afpc.info/content/canexed-reports). Extensive consultation with stakeholders contributed to the development of the practice experience courses (Appendix G). This consultation has resulted in strong support of the current proposal by the practice community (see Appendix F).

2.4.2 *Describe the student's role in securing placements.*

Students are not responsible for securing their own placements. Placement sites are recruited by the Faculty using selection criteria that focus on quality of both the preceptor and site (http://pharm.ualberta.ca/preceptors/how-to-become-a-preceptor). Students are subsequently matched to placements using a software program called Rx Preceptor™ (https://www.academicsuiterx.com/experiential_management.php). This program takes into account student preferences as well as the needs of the Faculty. This program also facilitates communication with students and preceptors, as well as evaluations of the students, preceptors and sites.

2.4.3 *Explain how the institution will supervise/monitor the learning experience of students in off-site settings?*
Students are provided with comprehensive information regarding their roles, responsibilities and expectations within external practice sites. Students' experiences at off-site settings in years 1 to 3 are monitored through communication with students, agencies, preceptors, and through required course activities. In year 4 of the program, the PharmD Integrating Seminar course includes activities to monitor students' experiences in advanced practice experiences. Student and faculty member feedback on the PharmD Integrating Seminar course in the PharmD for Practicing Pharmacists program is positive.

To manage and ensure clear understandings and responsibilities of pharmacies involved in providing preceptors for student pharmacists, the University provides preceptor training. Preceptor training involves face-to-face workshops, online videos, resources and forums. The Faculty has offered 35 preceptor workshops in six locations in Alberta since 2012. A comprehensive preceptor guide was developed (http://pharm.ualberta.ca/preceptors/training-and-resources). Students in the PharmD for Practicing Pharmacists program attend the preceptor training workshop. The Faculty, through work with PEP-C, is exploring alternate precepting models and participating in the creation of a national preceptor development program.

The Faculty provides academic appointments for preceptors to recognize their contributions to the education of student pharmacists. Preceptors are provided access to electronic resources within the library to support teaching and learning. Faculty members liaise with preceptors in hospital, community, primary care and other practice sites to ensure ongoing communication and supervision of students. The Faculty has shared positions with Alberta Health Services to enhance monitoring of the learning experience of students while on clinical placements.

Finally, as noted in Section 2.4.2, Rx Preceptor™ management software is used to monitor student progress.

2.4.4 *Identify potential employer/employee liability related to this aspect of the program, and how the institution intends to manage this liability.*

Both the University and pharmacies where students are placed have comprehensive liability insurance and indemnification. Work sites are also required by law to have Workers compensation programs in place for each student pharmacist. A comprehensive placement agreement for the University of Alberta as a whole, addressing expectations and liability, is in place for sites run by Alberta Health Services and Covenant. Individual placement agreements are in place for community-based pharmacy sites. These agreements are unchanged from the existing BSc in Pharmacy program.

SECTION 3: INSTITUTIONAL AND SYSTEM CONTEXT

3.1 Institutional Strategy

How does the proposed program align with the institution's strategic priorities and the Comprehensive Institutional Plan?

The development of the PharmD program fits well with the values of boldness and broad-mindedness outlined in the University of Alberta's Strategic mission and plans; ***Dare to Discover*** (see http://www.president.ualberta.ca/en/DaretoDiscover.aspx). With the current changes in the healthcare system, the borders between the various healthcare disciplines are less defined to enable optimal and health promotion-focused care for all citizens. The new PharmD program recognizes and optimizes the utilization of skilled pharmacy health professionals who can deliver community and institutional care, are forward thinking, and work effectively in solid interprofessional relationships with healthcare systems, the community and citizens.

The PharmD program engages actively with the ***Dare to Discover and Dare to Deliver cornerstone University vision and academic institutional plans*** plan through:
- Enriching the undergraduate student experience
- Integrating teaching, research, scholarship and creative activities
- Fostering interprofessional collaboration
- Urban and rural engagement
- Enhancement of learning and discovery through cultivation of values of citizenship, engagement, diversity and community

The **Mission of the Faculty of Pharmacy and Pharmaceutical Sciences is** *to provide pharmacy and graduate education designed to meet societal needs for safe and effective use of medications and to cultivate research and pharmacy practice.* The Faculty's vision is *Excellence and innovation in pharmacy education and research through learning, discovery and citizenship.*

The Faculty's proposed Pharm D program supports the University's mission in disseminating and applying new knowledge through teaching and learning. This program will create an opportunity for all students to complete advanced course work and integrate their learning into the community through expanded clinical placements. During these clinical experiences, students learn from patients, preceptors, and other health professionals. Students also provide preceptors with the

opportunity to learn from experiences with students, further enhancing the provision of patient care. The proposed PharmD program addresses the evolution of pharmacy education, expectations and standards of the PharmD degree.

3.2 Institutional Programs

Explain how the proposed program fits with existing programs at the institution, and the anticipated positive or negative impacts on other programs.

The new pre-pharmacy requirements fit well with existing programs at the University of Alberta including aligning in part with the requirements for some other BSc or health professions degrees. In addition, the Faculty worked with Campus Saint-Jean to support development of a bilingual pre-pharmacy program for students attending Campus Saint-Jean. Similarly, students at the Augustana Campus will be able to complete two years pre-pharmacy while attending courses in Camrose. The proposed program will maintain courses that support Community Service Learning and Global Citizenship certificate requirements.

The proposed PharmD program combines aspects of the existing PharmD for Practicing Pharmacists program and the current BSc in Pharmacy program, with the suspension of the latter program planned once all currently enrolled BSc students have graduated. Students who are currently in the existing BSc in Pharmacy program at the time of implementation of the new PharmD program will be given transition opportunities and appropriate credit if they choose to pursue a PharmD degree designation. There will be no negative impact on any University programs.

3.3 Internal Review and Approval

Provide a brief description of the internal review and approval process followed in developing the proposal.

Extensive research and consultation has occurred with the development of the PharmD program at the University of Alberta. Consultation has occurred with both internal and external stakeholders. Internally, Pharmacy Practice and Pharmaceutical Science Faculty members have been involved in consultations, along with current and graduated students from the BSc in Pharmacy program. Consultations within the Faculty of Pharmacy and Pharmaceutical Sciences that supported development and approval of the PharmD proposal are outlined in Appendix H.

Internally, the process of development and review included Steering Committee working groups comprised of internal (i.e. all academic staff members) and external stakeholders, followed by Curriculum Committee approval prior to Faculty Council approval on June 12, 2015 (Figure 1). There was tremendous engagement of faculty members in the development and review processes. During the 2014-15 academic year, over 90% of faculty members participated through engagement with curriculum development or review activities. Those not participating were because of approved leaves (e.g. sabbatical, leave without pay, etc.)
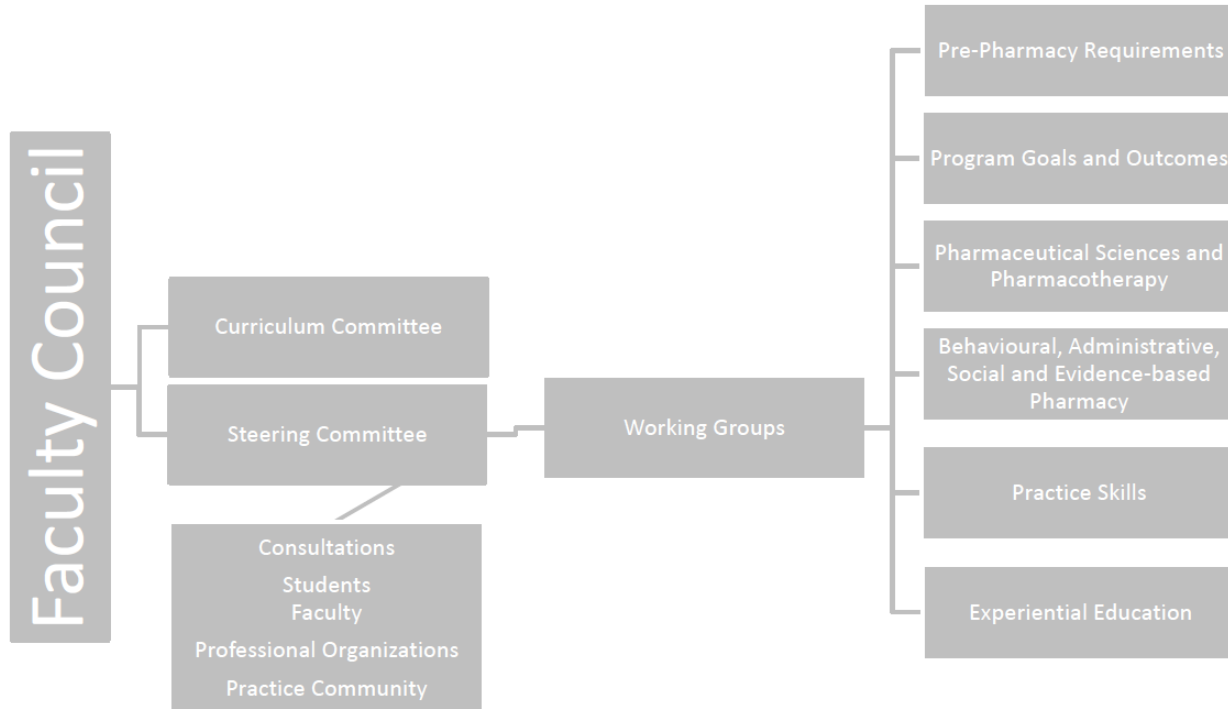
Figure 1. Program development and review process

The University of Alberta approval process requires review and approval by the University's Academic Standards and Academic Planning committees prior to submission to the Provincial Government. We have also consulted with the Ministry of Innovation and Advanced Education, Alberta Health Services, and Covenant Health throughout this process.

See Appendix H: Faculty of Pharmacy and Pharmaceutical Sciences Consultations

3.4 Campus Alberta Programs/Initiatives

Discuss the relationships (similarity, complementarity, transfer, competition) of the proposed program to other programs or initiatives in Campus Alberta and explain what the proposed program would add to the system. If the proposed program would duplicate existing programs, explain why that duplication is warranted.

The Faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta offers the only Pharmacy program in Alberta and receives students from all geographical areas of the province. We collaborate in a number of ways with NorQuest College's pharmacy technician program and are consulting with them regarding potential pathways for pharmacy technician graduates.

Pharmacy education in Alberta currently requires a minimum of one year of pre-pharmacy course work followed by admission to the Faculty of Pharmacy and Pharmaceutical Sciences for four years of study. The proposed curriculum is designed so that students can take two years of prerequisite courses

at all universities in Alberta and most colleges. The pre-pharmacy requirements are structured so that students either changing their minds, or failing to gain admission to the Faculty, can apply most, and possibly all (this is, in the end, up to other programs to decide) credits to some other health- or science-related degree program so that they can still complete a bachelor's degree in about four years. This proposal is within the spirit of Campus Alberta and we believe will help attract students to pharmacy from all corners of the province. The proposal would also facilitate students at the Augustana Campus and francophone students from Campus Saint-Jean to enter pharmacy. Possibilities for a bilingual program are under consideration and will be explored upon approval of the current proposal. Students' bilingual capabilities would be a tremendous asset to health care in the province of Alberta. We also believe this proposal would better serve those students unsuccessful in admission to their program of choice. For example, only one in five applicants are admitted to pharmacy. Thus, such students would continue to have a defined degree pathway to follow.

Some small impact may be felt at other institutions of higher education in Alberta in some selected courses that would be newly required for admittance to pharmacy. However, because the core requirements are largely unchanged from the existing program, and the additional requirements include a range of more general topics rather than specific courses, this impact will be minimal. For example, the new pre-pharmacy requirements include a minimum of 18 credits in social sciences/humanities and up to 9 credits in sciences, but do not define specific courses. This approach enables students at any university to meet these prerequisite requirements. This embraces the Campus Alberta concept and we anticipate increasing numbers of students taking pharmacy prerequisites at institutions other than the University of Alberta. By changing to two years of prerequisites, the completion of pre-pharmacy course work will be facilitated and equalized at universities across the province. Currently, students at the University of Alberta have an advantage of completing the pre-pharmacy course work in a single year because of the specific course offerings available, something that is difficult or even impossible at some universities. By changing to a two year pre-pharmacy curriculum students at all universities in Alberta will be able to complete requirements within this time frame.

3.5 Consultation
Summarize the type and outcomes of consultations with other institutions offering related programs. Attach copies of relevant documents (e.g. letters, meeting summaries). Discuss the potential for inter-institutional collaboration.

The University of Alberta offers the only pharmacy program in Alberta.

See Appendix G Experiential Education Stakeholder Engagement and Appendix I Consultations with External Stakeholders

3.6 Learner Pathways
3.6.1 *Identify potential pathways from work to school (where applicable).*
> See 3.6.2

3.6.2 *Identify potential opportunities for transfer/laddering <u>into</u> the proposed program from other institutions or other programs within the institution; and for transfer/laddering <u>from</u> the proposed program to other programs within the institution or at other institutions. List any formal agreements for internal or inter-institutional transfer/laddering that have been negotiated to this point.*

As the only pharmacy program in Alberta, the Faculty already accepts students from post-secondary institutions across Alberta, and from other provinces. As noted above in Section 3.4, the new prerequisite rquirements are expected to further facilitate such transfers. Because of accreditation standards, and their specialized nature, courses in pharmacy are not applicable to other programs. Thus, transferring from the pharmacy program to other programs is very unusual, and largely limited to transfers to the MD Program.

Discussions with Norquest College are underway to explore potential pathways to pharmacy from their pharmacy technician program.

For BSc in Pharmacy students, the following pathways will exist to obtain the PharmD degree: (1) following year 3 of the BSc in Pharmacy program (only for students enrolled at the time the PharmD program is initiated), or (2) following completion of the BSc in Pharmacy degree (for any licensed pharmacist) (Figure 2).
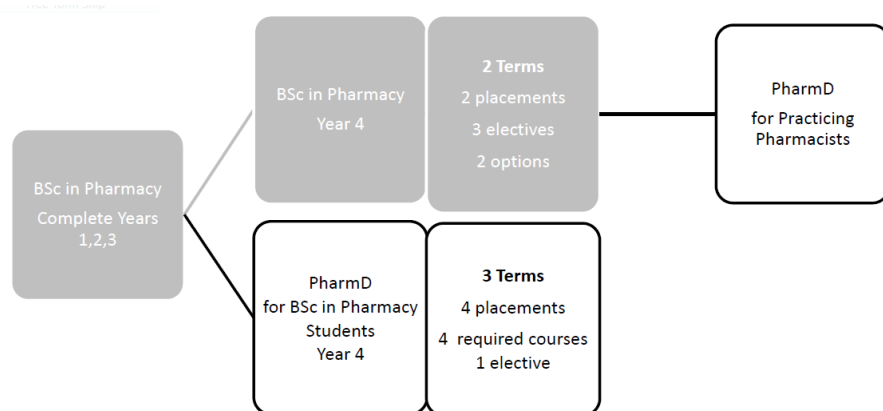
Figure 2. Pathways for BSc in Pharmacy students

3.6.3 Estimate the *portion of graduates who can be expected to proceed to further education directly. At a later stage in their careers. What types of programs/credentials would they be most likely to pursue?*

According to the 2014 and 2015 Graduating Students Surveys, 51 and 54% of graduates report seriously considering the pursuit of additional education including residencies, specialized training, a PharmD, and graduate school (MBA, MSc and PhD).

SECTION 4: FINANCIAL VIABILITY AND SUSTAINABILITY

4.1 Annual Budget and Funding Sources

Identify annual and one-time expenditures and annual revenue for the program in the budget tables below. If program implementation will take place over more than one year, provide estimates for each year until full implementation. Provide explanatory notes for all budget assumptions, such as inflation and per student tuition. (For proposals without significant impacts on institutional costs, revenues or enrolment, a detailed budget presentation will not normally be required (please confirm with the department). Such proposals will satisfy all of the following tests:
1. *The proposal is for a new specialization in an existing program, consisting of an innovative combination of existing curricula.*
2. *Overall enrolment capacity in the program is maintained.*

3. *Excepting incidental administrative and promotional costs, no start-up or incremental operations costs are incurred.)*

	Annual Ongoing
Revenue	
Tuition and Related Fees[1]	$ 400,000
Re-allocation from Existing Programs[2]	$6,334,648
Other Internal Sources[3]	$ 714,000
	$1,100,000
	$ 75,000
External (Third Party) Sources	$0
GOA (Identify source)	$0
Other (specify)	$0
Total Revenue	$8,623,648
Operational Costs	
Salaries, Wages and Benefits[4]	$7,656,963
Materials and Contracted Services	$ 643,516
Other Direct Costs	$0
Indirect Costs	$0
Total Operational Costs	$8,300,479

Notes:
1. PharmD for Practicing Pharmacists program tuition from the cost recovery stream. Faculty members teaching in the proposed PharmD program are also involved in the PharmD for Practicing Pharmacists program. Revenue and expenses for both programs are included.
2. The PharmD program is replacing the BSc program. A consolidated budget represents expenditures and revenues at the time the program begins and projects all 4 years of the program.
3. Other Internal Sources (listed in order) include: Campus Alberta Grant in lieu of 2015 Market Modifier; 2010 Market Modifier; International Differential Fees.
4. Salaries and wages are current amounts and do not include expected cost of living and merit increases. Thus, the proposed budget surplus will be smaller than listed.

One-time expenditures	Amount	Revenue Source	Details
Facilities	0		
Equipment and IT	$ 7,146	Positive Flex Funds from prior years	Equipment required for teaching in practice labs; computer upgrades in the computer lab.
Curriculum Development	$150,000	Positive Flex Funds from prior years	Support for faculty development
Marketing and Promotion	0		
Faculty Recruitment and Establishment	$ 5,000	Positive Flex Funds from prior years	Recruitment activities such as advertising travel. Salaries are included in the continuing budget.
Library Enhancements	0		
Other	0		

4.2 Impact

4.2.1 Compare the proposed tuition rate with that of similar programs in Campus Alberta.

There are no other pharmacy programs in Alberta. The proposed tuition will be unchanged from what is currently approved for the BSc (including the 2010 Market Modifier).

Background on Tuition and Market Modifier

In 2009, a proposal was submitted to implement, for the first time, a market modification to BSc pharmacy tuition. The proposal was based on the higher cost to educate a pharmacist than a non-health professional undergraduate student, as well as comparisons to the other Canadian pharmacy programs that showed our tuition and fees were well below the mean. The proposal received support from our students and was approved by the government in 2010, with implementation starting with the class entering in September 2011. Full implementation of the market modification for all four years of students in the program occurred with the class entering in September 2014.

Market Anomaly of Tuition Fees

Since the initial approval of a Market Modification for pharmacy, our Faculty (like all faculties of pharmacy in Canada) has committed to begin a new curriculum leading to a more highly skilled pharmacy practitioner. The current proposal is to initiate this new curriculum starting with the class entering in September 2017. This new curriculum will entail additional costs in terms of experiential education, pharmacy practice skills labs, new teaching and learning methods, interprofessional education, and significant program evaluation activities mandated by pharmacy accreditation standards. Specifically, experiential education will increase to 40 weeks from the current 22 weeks; additional recruitment of preceptors/sites and support for preceptors/students will be required; pharmacy practice labs will be expanded to provide additional time to prepare students for experiential courses; there will be an increased need for lab facilitators and course coordinators; and new teaching and learning methods will be implemented and require support for innovative teaching and assessment, maximizing the use of technology, blended learning, and small group learning activities.

As a result of these changes designed to educate a more prepared practitioner, the three English language Canadian pharmacy programs (UBC, Toronto and Waterloo) that have already implemented PharmD curricula have substantially higher tuition than Alberta. Importantly, Saskatchewan, Manitoba, and Dalhousie plan to increase their tuition once their new curricula are implemented (see Table below). There was, therefore, a need to generate additional revenue in pharmacy to be able to offer our new curriculum at the high level required by our accreditation standards, as well as to prepare our graduates for the exceptional pharmacist scope of practice in Alberta (the best in North America). This need resulted in the approval of a second market modifier in 2014 to be implemented in 2017. However, this market modifier was suspended by the government in 2015 and replaced with new base funding. Thus, tuition costs for student pharmacists at the University of Alberta will be below the mean for Canada, and will be far below programs at Toronto, Waterloo, and UBC offering PharmD curricula (Table 1).

Comparator data

There are 10 pharmacy schools in Canada. Our main competitors in pharmacy education in Canada are UBC and Toronto. Like us, both of these programs are located at major research universities with medical centers, and have a strong research component. In addition, both offer exceptionally strong undergraduate pharmacy programs. The U of A PharmD program will be modestly priced relative to our peers.

Table. 4.2.1 Total annual tuition and fees for Canadian PharmD pharmacy programs for 2015-16*

Alberta	$10,136
UBC	$13,750
Toronto	$17,820
Dalhousie	$12,000 – estimate for PharmD curriculum
Manitoba	$12,000 – estimate for PharmD curriculum
Saskatchewan	$16,500 – estimate for PharmD curriculum
Waterloo	$17,200
Memorial	$ 3,500 – estimate for PharmD curriculum
Montreal	$ 3,182
Laval	$ 3,900
Mean of all schools:	$11,000
Mean[†] (excluding Memorial & Quebec):	$14,200

*Most programs have somewhat variable levels of tuition by year. The numbers given above are a mean annual amount over the 4 year program. In addition, the numbers for Saskatchewan, Manitoba, Dalhousie, and Memorial are estimates as their programs will not begin until about 2017 like ours.

[†]Tuition in Quebec is very low for all university students. Memorial University of Newfoundland has frozen tuition for all programs, including pharmacy, for many years. Thus, tuition at these programs is considered anomalous.

4.2.2 Discuss the financial impact on students and the learner funding system, taking into account the costs of education and the potential debt burden relative to post-graduation earning capacity.

Tuition will not increase from the existing BSc program. Thus, there is no additional financial impact on students. Currently, average debt information for Canada (including Alberta) pharmacy students is not available. Based on data from the United States (US), adjusted for dramatic differences in tuition costs (state schools average over US$20,000/year), it is estimated that average debt at graduation arising from pharmacy school is about $35,000. With starting salaries around $95,000 per year, this is not considered a significant burden.

4.2.3 If program funding includes internal reallocation, evaluate the impact of this reallocation on the institution's operations and overall financial position.

Program funding involves a complete internal reallocation of existing resources devoted to pharmacy. Because the current BSc program will be suspended, there will be no impact of this reallocation on the Faculty or University.

RECOMMENDATION (FOR DEPARTMENT USE)

Do Any Issues or Information Gaps Remain?

Recommendation(s)

Reviewer(s)

Date Completed

Part B: Campus Alberta Quality Council Review

As noted at the beginning of Part A, given a positive outcome from the System Coordination Review, the Minister may refer the proposed program to the Campus Alberta Quality Council for quality assessment, the second stage of review.

The onus is on the applicant institution to satisfy Council that the level of learning to be achieved is consistent with that which is expected at the proposed degree level, that the program has sufficient breadth and rigour to meet national and international standards as outlined in, for example, the Canadian Degree Qualifications Framework (CDQF), and that the program is comparable in quality to similar programs (if any) offered in Alberta and elsewhere. The program proposal should demonstrate how Council's program quality standards and any applicable guidelines have been addressed and describe any unique dimensions that set the program apart from similar programs thus providing new educational opportunities for students.

NOTE: Part A of the program proposal may undergo changes as a result of the System Coordination Review. It is important that Part A be up-to-date and complete before it is forwarded to Council. Building on the information provided in Part A, the program proposal that is sent to Council should contain the following additional information. When possible, links to existing policy documents and institutional policies should be provided, rather than recopying them in response to questions.

SECTION 5: PROGRAM SPECIFICS

5.1 Program Structure and Learning Outcomes

5.1.1 *Describe the program's learning outcomes and how they were established. How will the achievement of the learning outcomes be evaluated? Providing a mapping of the courses to the learning outcomes, particularly in professional programs, is helpful.*

The Doctor of Pharmacy (PharmD) is a clinical undergraduate degree. This degree is the new standard for professional education in pharmacy. The curriculum leading to this degree is designed to better prepare graduates to meet licensure requirements and to be competent and highly skilled practitioners in the profession. The proposed program will replace the current BSc in Pharmacy degree.

The program's learning outcomes are based on the Association of Faculties of Pharmacy of Canada (AFPC) *Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada* (2010). In addition, other professional standards and guidelines were considered: Standards of Practice (Alberta College of Pharmacists, 2011), Competency Profile for Alberta Pharmacists (ACP Competencies ACP, 2010), Professional Competencies for Canadian Pharmacists at Entry to Practice (National Association of Provincial Regulatory Authorities, 2013), Centre for the Advancement of Pharmacy Education Educational Outcomes (2013), The Draft CanMEDS 2015, Accreditation Standards for the First Professional Degree in Pharmacy Programs (Canadian Council for Accreditation of Pharmacy Programs; CCAPP, 2013), American College of Clinical Pharmacy Position

Statement: Educational Outcomes Necessary to Enter Pharmacy Residency Training (2014), and the Interprofessional Learning Pathway Competency Framework (http://www.hserc.ualberta.ca).

The program's learning outcomes were initially drafted by a Working Group of the Steering Committee formed to oversee the development of the PharmD program (Figure 1). The Steering Committee included academic staff members, students, and external stakeholders. Several rounds of consultation between the Steering Committee and faculty members served to refine the outcomes. The PharmD program goals and outcomes were approved by the Faculty of Pharmacy and Pharmaceutical Sciences' Faculty Council, September 12, 2014. Following this approval, working groups began development of courses to address the learning outcomes. To ensure that learning outcomes are achieved, course objectives and major topic areas were mapped to the program's learning outcomes. Results of the mapping demonstrate that all of the program outcomes are addressed. Final approval of the new program by Faculty Council occurred on June 12, 2015.
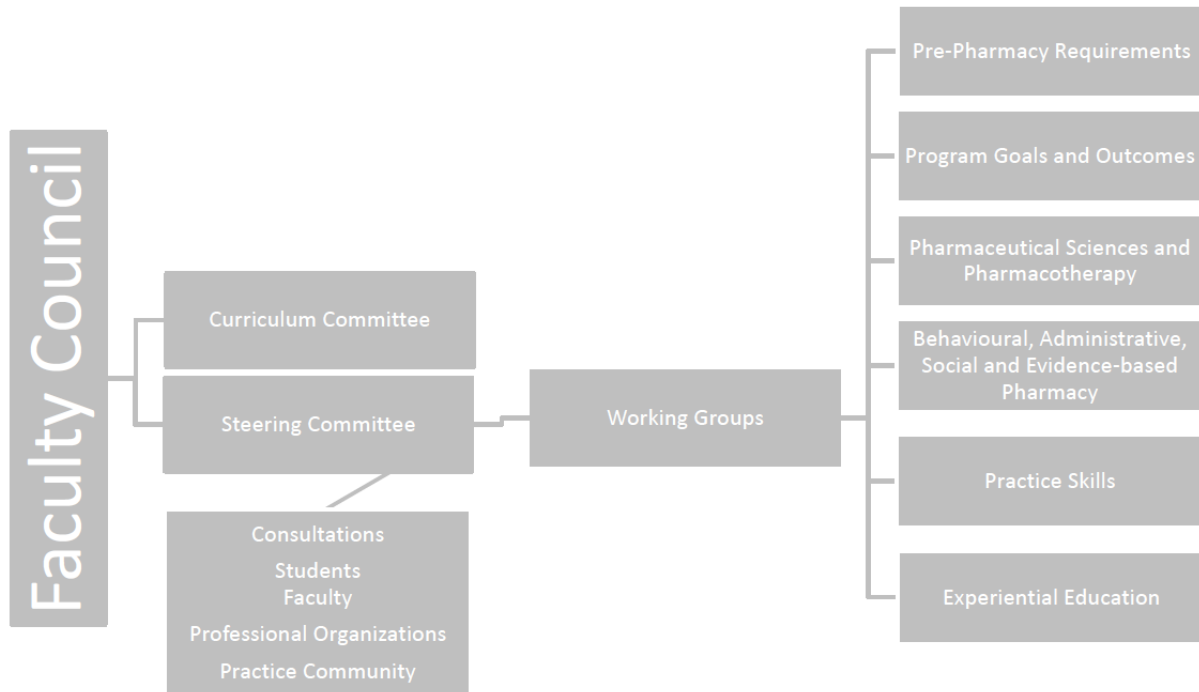
Figure 1. Faculty program development and review process

For further details, refer to
Appendix A: Program Goals and Outcomes
Appendix B: Program and Course Overview
Appendix E: Steering Committee Terms of Reference
Appendix J: Mapping of Course Objectives to Outcomes

5.1.2   *Students are expected to demonstrate independent scholarly activity applicable to the degree level and expectations of its graduates (see the CDQF). Describe the academic culture that will nurture and support student scholarly and creative activity.*

The University of Alberta Faculty of Pharmacy and Pharmaceutical Sciences is the only pharmacy program in Alberta. It began 101 years ago (1914) and is fully accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP). The Faculty currently enrolls 131 student pharmacists per year and educates about 55 graduate students. Enrollment will not change with the transition to the PharmD program.

The Faculty pursues its mission through research, teaching and scholarly activities that prepare a diverse student body to be practitioners and researchers who are able to improve primary health care to the citizens of Alberta and beyond. The Mission of the Faculty of Pharmacy and Pharmaceutical Sciences is to provide pharmacy and graduate education designed to meet societal needs for safe and effective use of medications and to cultivate research and pharmacy practice. The Faculty's vision is excellence and innovation in pharmacy education and research through learning, discovery and citizenship. There is a sense of excitement with respect to the opportunities seen by faculty and staff members, and their goal is to achieve the highest possible standards in clinical and professional service, through faculty member and student involvement in research experiences and evidence-based practice.

The Faculty has built a cohort of staff members with the desire and aptitude to enhance research and teaching activities. These efforts accelerated during the past six years and we now have 42 faculty members involved in teaching student pharmacists. Twenty-two faculty members are tenured or tenure track, with the remaining faculty members in non-tenure track positions. Seventeen faculty members are in the Pharmaceutical Sciences Division and the remaining 25 are in the Pharmacy Practice Division. In addition, student pharmacists are supervised by adjunct faculty, preceptors and clinical academic colleagues, many of whom engage in practice-based research. The faculty member cohort is expected to increase by two with the advent of the PharmD program in order to deliver all required components.

All faculty appointments (tenure- and non-tenure track) carry an expectation for scholarly activity (albeit different levels) and maintenance of competency in their area of expertise. Faculty members have received numerous recognitions that document their leadership at the national and international levels in research and clinical practice. Pharmacy Practice staff members are encouraged to maintain an active clinical practice, although not all do so due to the expectations of their specific job within the Faculty. Non-paid secondment agreements have been developed to facilitate clinical activities. The Faculty values the expertise of clinicians through teaching and research initiatives conducted in clinical settings. Clinical and research expertise also enhances classroom teaching and has been highly valued by students on course evaluations. The Faculty has introduced a peer-mentoring program to support growth in scholarly activities.

Faculty members are committed to supporting undergraduate research initiatives. Through the program development and review processes (Figure 1), the PharmD program proposal

was adapted to enable students to complete a research elective course during year 2 or 3. This was done to encourage engagement with research early in the program (Appendix B). Currently, approximately 20% of undergraduate pharmacy students complete research projects each year, and this is expected to continue in the PharmD program.

5.1.3 *For undergraduate degrees, demonstrate (in a table, if possible) how the program meets the relevant section of CAQC's Expectations for Design and Structure of Undergraduate Degrees.*

The proposed PharmD program meets the CAQC's expectations for design and structure of undergraduate degrees. Details are outlined in Table 5.1.3.

Table. 5.1.3 Degree Level Standards

Expectations	The degree is awarded to students who have	PharmD program meets this expectation
1. Depth and Breadth of Knowledge	(a) Knowledge and critical understanding in a field of study that builds upon their secondary education and includes the key assumptions, methodologies, and applications of the discipline and/or field of practice	Pre-pharmacy requirements include a breadth of courses in fields of sciences, social sciences and humanities. Courses in the proposed PharmD program address key assumptions, methodologies of various fields in the discipline such as pharmaceutical sciences, pharmacy practice, social and administrative pharmacy, and evidence-based practice.
	(b) Basic understanding of the range of fields within the discipline/ field of practice and of how the discipline may intersect with fields in related disciplines	Courses in the proposed PharmD program integrate basic understandings of the fields within pharmacy, e.g. pharmacology, medicinal chemistry with pharmacotherapy decisions. Courses in the final year of the program are specifically designed to integrate fields within pharmacy and related fields (PHARM 543, 546). Interprofessional learning activities are integrated throughout the program through classroom-based and simulation activities, and through patient care activities in the practice experience courses.
	(c) The ability to gather, review, evaluate, and interpret information, including new information relevant to the discipline, and to compare the merits of alternate hypotheses or creative options relevant to one or more of the major fields in a discipline	Pharmacy is an information-rich field. Development of skills to gather, review, interpret and apply information is embedded in all courses in the proposed PharmD program. Specific emphasis on skill development related to information is emphasized in Behavioural, Administrative, Social and Evidence-based Pharmacy courses (PHARM 212, 213, 312, 313, 412, 413). Use of evidence and information is reinforced in Patient Care Skills courses (PHARM 220, 223, 320,323, 420, 423). Information skills are applied in delivery of patient care in the Practice Experience courses (PHARM 354, 454, 554, 555, 556, 557).

	(d) The capacity to engage in independent research or practice in a supervised context	Research skills are modeled in the pharmaceutical sciences courses and Behavioural, Administrative, Social and Evidence-based Pharmacy courses.
		Participation in research in the clinical setting is offered in some of the Practice Experience courses in year 4. The elective rotation (PHARM 557) may involve research.
		A research elective course is available for students in either year 2 or year 3.
	(e) Critical thinking and analytical skills inside and outside the discipline	Critical thinking and analytical skills are addressed throughout the proposed PharmD program.
		Behavioural, Administrative, Social and Evidence-based Pharmacy courses introduce and integrate thinking across disciplines, e.g. law, social sciences.
		Skills are demonstrated through presentation of ideas through written and oral presentations. See PHARM 543, 546.
	(f) The ability to apply learning from one or more areas outside the discipline	Behavioural, Administrative, Social and Evidence-based Pharmacy courses introduce and integrate thinking across disciplines, e.g. law.
2. Knowledge of Methodologies and Research	(a) An understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to (i) evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques, (ii) devise and sustain arguments or solve problems using these methods, and (iii) describe and comment upon particular aspects of current research or equivalent advanced scholarship in the discipline and on their relevance to the evolution of the discipline	Research methods are modeled in the pharmaceutical sciences courses and taught in the Behavioural, Administrative, Social and Evidence-based Pharmacy stream. (See PHARM 212, 213, 312, 313, 412, 413.) Application of evidence-based methods is demonstrated through presentations in written and oral formats. (See PHARM 543, 546.)
	(b) The ability to review, present, and critically evaluate qualitative and quantitative information to (i) develop lines of argument; (ii) make sound judgments in accordance with the major theories, concepts, and methods of the subject(s) of study; (iii) apply underlying concepts, principles, and techniques of analysis, both within and outside the discipline; and (iv), where appropriate, use this knowledge in the creative process	Evaluation of qualitative and quantitative information is addressed in all courses. Scientific research methods are addressed in pharmaceutical sciences courses (see PHARM 201, 202, 302, 303, 401). Specific approaches are highlighted in the Behavioural, Administrative, Social and Evidence-based Pharmacy courses. (See PHARM 212, 213, 312, 313, 412, 413.)

| 3. Application of Knowledge | (a) The ability to use a range of established techniques to (i) initiate and undertake critical evaluation of arguments, assumptions, abstract concepts, and information; (ii) propose solutions; (iii) frame appropriate questions for the purpose of solving a problem; (iv) solve a problem or create a new work | Application of knowledge in a simulated environment in courses in the Patient Care Skills stream (see PHARM 220, 223, 320,323, 420, 423) and in supervised practice experiences (see PHARM 354, 454, 554, 555, 556, 557).

Students gain abilities to critically evaluate information and propose solutions through participation in community service learning (see PHARM 254). |
| --- | --- | --- |
| | (b) The ability to make critical use of scholarly reviews and primary sources. | Students make use of scholarly reviews and primary sources in all courses, particularly in Behavioural, Administrative, Social and Evidence-based Pharmacy courses (see PHARM 212, 213, 312, 313, 412, 413) and Practice Experiences (see PHARM 354, 454, 554, 555, 556, 557). |
| 4. Communication Skills | The ability to communicate information, arguments, and analyses accurately and reliably, orally and in writing, to specialist and non-specialist audiences, using structured and coherent arguments, and, where appropriate, informed by key concepts and techniques of the discipline. | Communication is embedded in all courses, particularly in the Patient Care Skills stream (see PHARM 220, 223, 320,323, 420, 423) and in supervised Practice Experiences (see PHARM 354, 454, 554, 555, 556, 557). |
| 5. Awareness of Limits of Knowledge | An understanding of the limits to their own knowledge and ability; an appreciation of the uncertainty and ambiguity of and limits to knowledge, and an appreciation of how this might influence analyses and interpretations. | Understanding limits of knowledge is emphasized throughout the program, and particularly in Behavioural, Administrative, Social and Evidence-based Pharmacy courses (see PHARM 212, 213, 312, 313, 412, 413) and Integrating Seminar courses (see PHARM 543, 546). |
| 6. Professional Autonomy | Qualities and transferable skills necessary for further study, employment, community involvement, and other activities requiring (i) the exercise of initiative, personal responsibility and accountability in both personal and group contexts, (ii) working effectively with others, and (iii) behaviour consistent with academic integrity. | Qualities and transferable skills are emphasized throughout the program, and particularly in supervised Practice Experiences (see PHARM 354, 454, 554, 555, 556, 557). |

For further details, refer to:

Appendix A Program Goals and Outcomes

Appendix B Program and Course Overview

Appendix D Proposed Calendar Content

5.1.4 *Provide an outline of the program structure and requirements (major, minor, cognates, core, general education, etc.) including credits in each category, and a summary description of the curriculum. Note any new courses. Course outlines must be available for reviewers but are NOT to be included with the proposal. (See sample table below - note that this is provided as a guideline only for a typical baccalaureate program, and will be different for other baccalaureate and graduate programs).*

Program structure

The proposed PharmD program consists of 141 credits of classroom, laboratory and practice experience courses completed over four years. The program structure is outlined in Table 5.1.4.1

Table 5.1.4.1 PharmD Program Structure

Component		Courses	Credits
Program requirements	Specified courses	33 courses	98 credits
	Elective course	1 course	3 credits
Required introductory practice experiences		2 courses	8 credits
Required advanced practice experiences		3 courses	24 credits
Elective advanced practice experience		1 course	8 credits
Total		40 courses	141 credits

To assist in demonstrating that the program curriculum is clear and well integrated with the objectives and outcomes, provide one or more typical student programs by year of program (see sample table below).

Typical student program

The typical student program for students entering the PharmD program is outlined below (Table 5.1.4.2).

Table 5.1.4.2 Typical Student Program for Students Entering the PharmD Program

		FALL	
	Course number	**Course title**	**Credits**
1st YEAR (2 terms)	PHARM 201	Principles of Medicinal Chemistry	3
	PHARM 203	Introduction to Pharmacology	3
	PHARM 204	Physiology and Anatomy for Pharmacy 1	3
	PHARM 212	Behavioural, Administrative, Social and Evidence-based Pharmacy 1	3
	PHARM 220	Patient Care Skills 1	3
	PHARM 254	Community Service Learning (over two terms)	3
	INT D 410	Essentials of Collaborative Practice (over two terms)	3
		WINTER	
	PHARM 202	Pharmaceutics 1	3
	PHARM 205	Physiology and Anatomy for Pharmacy 2	3
	PHARM 213	Behavioural, Administrative, Social and Evidence-based Pharmacy 2	
	PHARM 223	Patient Care Skills 2	3
	PHARM 243	Pharmacotherapy 1	3
	PHARM 254	Community Service Learning (continued)	-
	INT D 410	Essentials of Collaborative Practice (continued)	-
2nd YEAR (3 terms)		**SPRING**	
	PHARM 354	Introductory Pharmacy Practice Experience 1 – Community Practice	4
		FALL	
	PHARM 302	Pharmaceutics 2	3
	PHARM 303	Essentials of Pharmacokinetics	3
	PHARM 312	Behavioural, Administrative, Social and Evidence-based Pharmacy 3	3
	PHARM 320	Patient Care Skills 3	3
	PHARM 343	Pharmacotherapy 2	3
		WINTER	
	PHARM 313	Behavioural, Administrative, Social and Evidence-based Pharmacy 4	3
	PHARM 323	Patient Care Skills 4	3
	PHARM 344	Pharmacotherapy 3	3
	PHARM 345	Pharmacotherapy 4	3
	PHARM 346	Pharmacotherapy 5	3
3rd YEAR (3 terms)		**SPRING**	
	PHARM 454	Introductory Pharmacy Practice Experience 2 – Acute Care Practice	4

		FALL	
	PHARM 412	Behavioural, Administrative, Social and Evidence-based Pharmacy 5	3
	PHARM 420	Patient Care Skills 5	3
	PHARM 443	Pharmacotherapy 6	3
	PHARM 444	Pharmacotherapy 7	3
	PHARM 445	Pharmacotherapy 8	3
	PHARM XXX	Elective (any term in Year 3) A variety of electives in the BSc in Pharmacy will be offered, e.g. Research PHARM 498. New elective courses will be developed.	3
		WINTER	
	PHARM 401	Toxicology and Pharmacogenomics	
	PHARM 413	Behavioural, Administrative, Social and Evidence-based Pharmacy 6	3
	PHARM 423	Patient Care Skills 6	3
	PHARM 446	Pharmacotherapy 9	3
	PHARM 448	Pharmacotherapy 10	3
4th YEAR (2 terms)		**SPRING, FALL OR WINTER**	
	PHARM 554	Advanced Pharmacy Practice Experience 1 – Community Practice	8
	PHARM 555	Advanced Pharmacy Practice Experience 2 – Acute Care Practice	8
	PHARM 543	Advanced Pharmacy Practice and Pharmacotherapy Integrating Seminar (over two terms)	1
		SPRING, FALL OR WINTER	
	PHARM 556	Advanced Pharmacy Practice Experience 3 - Selective	8
	PHARM 557	Advanced Pharmacy Practice Experience 4 - Elective	8
	PHARM 546	Advanced Pharmacy Practice and Pharmacotherapy Integrating Seminar (continued)	1

This proposal addresses three audiences for the PharmD degree: (1) students entering the program, (2) students enrolled in the BSc in Pharmacy program at the time the PharmD program commences, and (3) practicing pharmacists (refer to Table 5.4.1.3 PharmD Degree Audiences). Following introduction of the PharmD program, an option will be offered to students then enrolled in the BSc in Pharmacy program to obtain the PharmD degree. It is important to note that implementing the PharmD program, as well as the option to obtain this degree for students in the BSc program, will NOT result in any delay in graduation. Thus, there will be the same number of graduates each year. The PharmD for Practicing Pharmacists program, approved in October 2011, addresses the needs of practicing pharmacists. The PharmD for Practicing Pharmacists program will be offered to practicing pharmacists until demand diminishes (estimated to be about 10 years after the proposed PharmD program begins).

Table 5.1.4.3 PharmD Degree Audiences

	(Proposed) PharmD	PharmD for BSc in Pharmacy Students	PharmD for Practicing Pharmacists (Implemented in 2013)
Admission Requirements	2 years, pre-pharmacy	After Year 3, BSc	BScPharm
Pharmacy Degree(s)	PharmD	PharmD	BScPharm, PharmD
Length of program	4 years	4 Years (+1 term)	2-5 years (part time)
Courses (Credits)	98	97 (84 BSc)	18
Options (Credits)	0	0	0
Electives (Credits)	3 (Course) 8 (Advanced Practice Experience)	3 (Course) 8 (Advanced Practice Experience)	0
Practice Experiences (Weeks/Credits)	40	40 (22 BSc)	36** **Prior Learning Assessment up to 18

The typical pathway for students enrolled in the BSc in Pharmacy program at the time the PharmD program is introduced is outlined below (Figure 2). For BSc in Pharmacy students, there are two pathways to obtain the PharmD dgree: (1) following year 3 of the BSc in Pharmacy program, or (2) following completion of the BSc in Pharmacy degree.
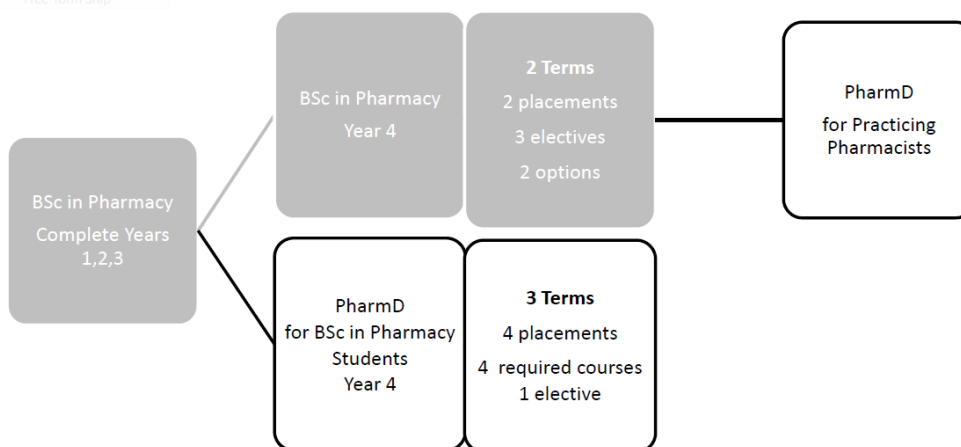
Figure 2. Pathways for BSc in Pharmacy students

For further detail, refer to:

> Appendix A: Program Goals, Outcomes and Courses
>
> Appendix B: Program and Course Overviews
>
> Appendix C: PharmD for BSc in Pharmacy Students
>
> Appendix D: Proposed Calendar Content

5.2 Criteria / Requirements for Admission and Academic Progression

State the admission criteria (including any provision for prior learning assessment), residency requirements, academic performance progression requirements, and graduation requirements applicable to the program, along with the grading scheme. Note any program specific regulations (e.g., for doctoral programs, note any candidacy or dissertation requirements, examination requirements, time to completion requirements, etc.).

Admissions

Applicants for the pharmacy program must have completed a minimum of two years (60 credits) of post-secondary education before being considered for admission. Included within the pre-pharmacy education must be the successful completion of prerequisites (33 credits) chosen by the Faculty. Prospective students will also choose an additional 27 credits from courses in the humanities, arts, and sciences. Completion of these courses will establish a foundation of educational knowledge and experiences that are relevant to material taught as part of the program and contribute to student success in the program. These foundational courses also include a spectrum of humanities/arts options to help create a well-rounded student. Other than the two years of pre-requisites, the admissions requirements are unchanged from the current BSc program.

The prerequisite courses include the following:

Course	Units of course weight
Cell Biology	3
Biochemistry	3
Microbiology	3
Calculus or algebra	3
English and/or Writing studies	6
Statistics	3
General chemistry	6
Organic chemistry	6
Humanities/Arts (Examples include: Anthropology, Community Service Learning, Economics, History, Political Science, Psychology, Sociology, English, French, Philosophy, or Drama)	Minimum 18
Sciences (Examples include: Biology, Biochemistry, Botany, Chemistry, Pharmacology, Physics, Psychology or Nutrition)	Up to 9

Applicants are also required to present a completed Pharmacist's consultation form, which is signed by a pharmacist and attests that the applicant has sought the counsel of a pharmacist to discuss the profession of pharmacy as a potential career. Another component that must be completed is a structured questionnaire that poses the applicant with some questions to be answered in a written format (this is used to assess the applicant's thinking and writing skills). The last required component is the completion of a web-based interview. All eligible applicants are sent an invitation to complete this interview, in which the applicant is asked two questions via a prerecorded video. Their responses are recorded and subject to review by the admissions committee (this is used to mostly judge verbal communication skills, which are an important component of modern-day pharmacy practice).

In addition to the above criteria, the admissions committee also examines the demonstrated ability of the applicants to be successful in a complete and full academic Fall/Winter term load of courses (because pharmacy is not a part-time, but rather a mandatory full-time program). Recent academic performance (i.e. grade point average in the last two years) is also examined.

The University of Alberta has some prescribed English Language Proficiency guidelines to which applicants must conform (https://www.registrar.ualberta.ca/calendar/Admission/UndergradPrograms/13.3.html).

The Faculty of Pharmacy and Pharmaceutical Sciences may provide one extra position to an Aboriginal applicant over the regular limit of 130. Students who are of Aboriginal ancestry within the meaning of the Constitution Act, 1982, Section 35(2) will be considered in this category. Proof of Aboriginal status, to be provided as part of the application for admission, is required for consideration of this position. The Faculty has routinely had one or more Aboriginal applicants each year that meet the Faculty's admission requirements.

Academic standing and promotion

These processes are unchanged from the current BSc Pharmacy program.

Progression

Progression in the program is year by year and not by courses completed. Accordingly, all students in a particular year of the program normally should be registered in the same courses in each term. Students will not normally register in any core (i.e., non-elective) courses from a particular year of the program until they have satisfactorily completed core courses from the previous year of the program.

Students accepted into the MBA/ Doctor of Pharmacy Combined Degrees program will be permitted to delay entrance into the fourth year by one year with no loss in standing. The duration of the total MBA/ Doctor of Pharmacy Combined Degrees program must not exceed six consecutive calendar years from the time of admission to the Pharmacy program.

Academic standing

Academic standing is assessed on the basis of: i) the pass or failure of individual courses, and ii) the GPA attained in a given year of the program (winter term). The academic year will begin with the spring/summer term to accommodate practice experiences in years 2, 3 and 4 of the program (see Appendix B). . In computing the GPA, grades of W and CR/NC, and grades in courses accepted for transfer credit are not included.

Each student's academic standing will normally be assessed at the end of the regular academic year. Students who are on Academic Warning will be assessed at the end of each term.

First-class Standing is typically awarded to an undergraduate student who obtains a GPA of 3.5 or above and passes all courses while enrolled in the minimum full academic course load in that year. However, First-Class Standing is not awarded in Year 4 given the limited number of graded units taken in that year.

Satisfactory Standing is awarded to a student who achieves a GPA of 2.1 or above if no course is failed.

Conditional Standing is assigned to a student who achieves a GPA of 2.1 or above but has failed one or more courses. A student who is assigned Conditional Standing will be placed on Academic Warning and must retake and pass all failed courses. Other courses are to be taken, up to a normal course load, as scheduling permits and as approved by the Faculty. Students on Academic Warning as a result of acquiring Conditional Standing will clear their Academic Warning upon passing the repeated course(s) and will qualify for promotion if they achieve Satisfactory Standing on the basis of all courses taken during the Year of Study. Students who fail a course a second time will be required to withdraw from the program.

Required to Withdraw: Any student failing to obtain a minimum GPA of 2.1 in any academic year is required to withdraw from the program. Such students are not normally readmitted to the program. Students who fail to provide satisfactory criminal record checks in connection with any practicum placement, or who fail to complete their degree requirements within the five calendar years, may be required to withdraw from the program.

Probation: Students who have been required to withdraw and who have successfully appealed that decision will be placed on Probation and required to repeat the program year. To clear probation and qualify for promotion, the student must achieve Satisfactory Standing in the probationary year. Students who fail to do so will be required to withdraw. Any student in a probationary year who fails a course in Fall Term will be required to withdraw immediately and subsequent registration will be cancelled. Only one year of probation is allowed while registered in the Faculty of Pharmacy and Pharmaceutical Sciences.

Appeals and Grievances: Decisions on academic standing are made by the Faculty Council. Appeals may be made to the Academic Appeals Committee. Certain academic standing decisions made by the Faculty Academic Appeals Committee may be appealed to the General Faculties Council Academic Appeals Committee. Enquiries concerning standing in individual courses should be made to the professor in charge of the course. If the issue is still not resolved, the student may report the matter to the Office of the Dean for enquiry. See §23.8 (Appeals and Grievances) for further information. The Faculty's regulations governing academic appeals and grade appeals may be obtained in the Dean's Office.

Leave of Absence: Unless enrolled in a combined degree program, students must register in the pharmacy program on a continuous basis to ensure a place in the program. The Faculty does, however, recognize that important life events do occur that may prompt a student to request a Leave of Absence. Students who desire a temporary discontinuation of their program must obtain prior approval for a Leave of Absence by submitting a request to the Student Services Office. A Leave of Absence will not be granted automatically and will be considered only for acceptable reasons (e.g. incapacitating illness, severe domestic affliction). Discontinuance without permission requires the student to seek readmission to the program, which is not guaranteed.

Normally, a Leave of Absence is granted only if all the following conditions are met:

- A minimum of one full term must be completed within the degree program before a Leave of Absence is considered
- The student has a cumulative GPA of 2.1 in the pharmacy program
- The reasons for the absence are considered by the Faculty to be acceptable
- No transferable courses are being completed at another institution during the Leave of Absence period
- The leave of absence does not by itself extend the duration of the program beyond the normal limit for completion of the program

An approved Leave of Absence will be granted for a maximum 12-month period of time, and will be granted only once in a student's academic career within the Faculty.

See Appendix D: Proposed Calendar Content

5.3 Engaged and Active Learning / Delivery Methods

5.3.1 *Demonstrate the ways in which the institution identifies and attends to the learning of students in the program and what pedagogies will be used to encourage their engaged and active learning, as per Council's program quality assessment standard #5 (Program delivery).*

At the University of Alberta, the General Faculties Council (GFC) Committee on the Learning Environment (CLE) is responsible for the promotion of excellence in teaching and of an optimal learning environment, as well as with the provision of appropriate information resources to the university community as a whole.

To prepare students to be competent and confident practitioners at the end of the PharmD program, meaningful and active participation of students in their own learning is essential. Students in the PharmD program will be engaged in active learning throughout their degree. Courses are taught in a variety of formats using student-centered teaching approaches. These include large classroom discussions, flipped classroom teaching approaches (online learning) with an emphasis on active learning during lecture time through discussions of patient cases or other problems/challenging issues. Several courses also have small group discussions/ seminars to encourage collaboration and sharing of ideas among students. In each term in the first three years of the program, there is a practice skills course that builds on the prior year in which students integrate their knowledge and develop patient care skills in laboratory-based practice simulations. Critical appraisal of articles, debates, role plays, and project work are other active learning methods that are used. Students also participate in service learning and a

total of 40 weeks of practice learning at a variety of sites including community pharmacies and acute care hospitals. There is a capping course in the fourth year of the program, which runs concurrently with the experiential rotations, which is designed to evaluate the student's ability to integrate knowledge and skills in pharmacy practice.

A number of faculty members have been recognized for innovations and excellence in teaching. Some examples include University of Alberta teaching awards: two faculty members (C Hughes, N Yuksel) received the Rutherford Award for Excellence in Undergraduate Teaching which is the highest teaching award given by the University to full time continuing faculty members, and another (S Mitchell) received the William Hardy Alexander Award for Excellence in Undergraduate Teaching. Faculty members have also received national recognition of excellence in pharmacy teaching by the Association of Faculties of Pharmacy of Canada: the Innovation in Teaching Award recognized a University of Alberta teaching team including three faculty members (C Cox, M Gukert, C Sadowski), and a National Award for Excellence in Education (S Mitchell).

The Faculty has engaged the University of Alberta's Centre for Teaching and Learning to deliver workshops and support faculty members in course development. The Faculty also plans to hire an instructional designer on a contract basis to support faculty members in developing and delivery the new curriculum, as well as planning student assessment for the PharmD program. The effective integration of technology to support instruction will be considered in course delivery. The Faculty's comprehensive program evaluation plan (Appendix K) provides information about the students' learning needs and experiences in the program. Faculty members use the information to identify areas for improvement in teaching and learning.

5.3.2   *Include a description of the teaching/learning approaches to be used, a description of the rationale for using the approach and evidence of adequate support for the approach. Where applicable, demonstrate how CAQC's Additional Quality Assessment Standards for Programs Delivered in Blended, Distributed or Distance Modes will be met.*

The Faculty is an established leader in providing state-of-the-art pharmacy education in Canada. The BSc in Pharmacy program is accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) and was commended for "maintaining the quality required of accredited schools" (Wayne Hindmarsh, Executive Director of CCAPP, Letter, July 3, 2014). As stated in section 5.3.1, faculty members are recognized for excellence in teaching and learning. Faculty members are invited to present about the pharmacy program and teaching innovations to local university, national and international audiences (for more details see https://pharm.ualberta.ca/about-us/contact-us-and-people/people). Peer reviewed publications about the University of Alberta pharmacy programs, teaching and learning are listed in Appendix L).

Many teaching and learning strategies are incorporated throughout the curriculum to allow for diversity of student learning. These strategies involve students as active learners and support their transition to independent learners. The curriculum is designed to allow for integration of basic/biomedical/ pharmaceutical science theory, practice knowledge and application, and skills. Pharmacotherapy courses focus on learning techniques, such as case-based learning, to support analyses and critical thinking. Problem-solving is encouraged throughout the

curriculum starting in the first year. Techniques such as problem- and case-based learning support the development of problem-solving skills. Courses are designed to develop verbal and written communication skills. Students take part in an interprofessional course in year one to begin their development of interprofessional communications and collaboration skills. Interprofessional learning and collaboration are integrated throughout all four years. Simulations, and a variety of information technology tools, are integrated throughout the curriculum. Self-directed learning is introduced in the first year and incorporated throughout the curriculum. Portfolios in the patient care skills and practice experience courses foster responsibility for achieving and maintaining competence.

5.4 Program Comparison

5.4.1 *Provide a comparative analysis of the proposed program (curriculum, structure, admission requirements, etc.) with similar programs offered elsewhere (if any), especially in Alberta and Canada (see sample table below). What process was used to determine which programs were deemed to be the most comparable? Illustrate the similarities and differences.*

As stated previously, the University of Alberta offers the only Pharmacy program in Alberta. The PharmD program proposed by the University of Alberta is comparable to other Canadian PharmD programs with respect to curriculum, structure, duration and admission requirements. Table 5.4.1 compares the University of Alberta to programs offered at the University of Toronto (implemented in fall 2011) and University of British Columbia (implemented in fall 2015). Curricula for all three programs are based on the AFPC Educational Outcomes and meet CCAPP standards for PharmD degrees (e.g. 40 weeks of practice experience). The duration of all programs is 4 years. Differences are noted in the credits assigned to electives and practice experiences. However, not all program components are directly comparable. For example, the University of Toronto does not use a credit system that can be compared to that of the University of Alberta. Approximate credits were provided by the University of Toronto based on a 39 hour course translating to 3 credits. In general, the credits included in the University of Alberta program both meet accreditation standards and are comparable to most North American PharmD programs. Entrance requirements for all programs include 60 credits of university level courses. The differences in pre-pharmacy requirements include microbiology (British Columbia and Alberta require microbiology), physics (Toronto requirement), and number of required credits in social sciences and humanities. All programs include elective courses. The numbers of elective credits vary between the programs. The proposed program includes 3 credits in year 3, and 8 credits in year 4. Program evaluation data indicates that pharmacy students desire electives that are practice-focused (Cor, Ken. 2015. "2014-2015 Curriculum Issues Arising from Assessment Activities." Presentation at Faculty of Pharmacy and Pharmaceutical Sciences Curriculum Committee, Edmonton, AB). In addition to a pharmacy elective in year 3, the year 4 advanced pharmacy practice experience offers students a practice-focused elective experience in the program.

Table 5.4.1.1 PharmD Program Comparison

Program component	Alberta	Toronto	British Columbia
Credential	Doctor of Pharmacy (PharmD)	Doctor of Pharmacy (PharmD)	Doctor of Pharmacy (PharmD)
Entrance course requirements*	60 Credits	60 Credits	60 Credits
Duration	4 years	4 years	4 years
Required courses	98 Credits	90 Credits	109 Credits
Elective courses	3 Credits	18 Credits	15 Credits
Introductory pharmacy practice experiences	8 Credits	8 Credits	11 Credits
Advanced pharmacy practice experiences	32 Credits (8 Elective Credits)	36 Credits	31 Credits
Total pharmacy practice experiences	40 weeks	44 weeks	42 weeks
Total credits	141 Credits	152 Credits	166 Credits
PharmD bridging program for BSc in Pharmacy students	yes	yes	no
PharmD bridging program for practicing pharmacists	yes	yes	yes

Sources: Program Websites, Personal Communication L. Raman-Wilms, July 22, 2015
*See comparison of entrance course requirements (Table 5.4.1.2)

Table 5.4.1.2 Pre-pharmacy Course Comparison

Pre-pharmacy courses	Alberta	Toronto	British Columbia
Biology	x	x	x
Biochemistry	x	x	x
Chemistry	x	x	x
Chemistry - Organic	x	x	x
English or Writing	x	x	x
Math: Calculus or Algebra	x	x	x
Microbiology	x	-	x
Physics	-	x	-
Statistics	x	x	x
Social Sciences or Humanities	18 credits	30 credits	6 credits
Sciences	9 credits	-	Up to 60 credits (Unspecified)

5.4.2 *If a similar program is currently offered at the institution, compare the structure, admission requirements and learning outcomes to the proposed program. If this is a conversion of an existing program (e.g., conversion of an applied degree to a new degree program), provide a table similar to the sample shown below.*

The proposed PharmD program is compared to the existing BSc in Pharmacy program (Table 5.4.2)

Table 5.4.2 Program structure, admission, requirements and learning outcomes

Program structure, admission, requirements and learning outcomes	BSc in Pharmacy	Doctor of Pharmacy	Doctor of Pharmacy for BSc in Pharmacy Students
Degree	BSc Pharm	PharmD	PharmD
Admission Requirements	30 credits	60 credits	Year 3, BSc in Pharmacy
Length of program	4 years	4 years	4 years (+ 1 term)
Learning Outcomes	AFPC Educational Outcomes	Based on AFPC Educational Outcomes	Based on AFPC Educational Outcomes
Course Credits	84	98	95
Options Credits	12	0	6
Electives Credits	9	3	3
Practice Experience (Weeks/Credits)	22	40	40
Total Credits	127	141	144

5.5 Other elements affecting quality

Note any other relevant aspects of the proposed program that might affect quality (e.g., fast-tracking, individual study, parts of the program to be offered in cooperation with another institution, etc.).

The University of Alberta is committed to the students and the professional community, and recognizes the benefits to addressing these audiences with the change from an undergraduate in Pharmacy to an undergraduate PharmD degree. Thus, the quality of this proposed program is greatly enhanced by including options for the PharmD for BSc in Pharmacy Students, and the established PharmD for Practicing Pharmacists. BSc in Pharmacy students enrolled when the PharmD program begins will have the opportunity to choose the PharmD degree option following completion of year 3 of the BSc program. Students in the PharmD programs will be educated in a pharmacy practice environment that is regarded among the most progressive in the world. Preceptor selection criteria established by the Faculty aides in the recruitment of qualified preceptors engaged

in innovative and advanced patient care practice, and enhances the quality of the program. Tuition levels for the one extra term required will remain the same as the BSc in Pharmacy tuition. If BSc in Pharmacy students decide not to pursue the PharmD after year 3, and complete their B. Sc. in Pharmacy, they will still be able to apply for the PharmD for Practicing Pharmacists sometime in the future. All graduates with the BSc pharmacy degree will be eligible to practice pharmacy.

The emphasis on interprofessional education and practice in the proposed PharmD program is another indicator of the superior quality of the program. Collaboration in learning and practice was emphasized in the PharmD for Practicing Pharmacists, introduced in 2013. This aspect of the program has been integrated in the proposed PharmD and the PharmD for BSc in Pharmacy Students. Other aspects, including the Integrating Seminar, were included in the curriculum to reinforce application of knowledge from all fields and other disciplines, as well as to enhance skill development in the areas of critical thinking and decision-making.

In preliminary discussions with the University of Saskatchewan, possibilities for participation by their faculty members in teaching, and practicing pharmacists in learning, through the PharmD for Practicing Pharmacists program appear promising for inter-provincial collaboration.

SECTION 6: IMPLEMENTATION AND RESOURCES

6.1 Program Implementation Plan

Provide a program implementation plan by academic year (start to maturity) that includes any elements to be phased in (e.g., new academic staff hires, courses, minors, co-op option). If introduction of this program is dependent on a similar program being phased out, the implementation plan should include how both programs are being supported until the phase out and start up are completed.

Implementation of the proposed PharmD program is outlined in Table 6.1. Students will be admitted to the program in 2017. Simultaneously, admissions to the BSc in Pharmacy program will be suspended. The PharmD for BSc in Pharmacy Students will be offered concurrently for three years to bridge implementation of the proposed PharmD program. It is possible that three programs will be offered concurrently for three years, if some students admitted to the BSc in Pharmacy program (2014, 2015, and 2016) choose to complete the BSc in Pharmacy degree. Teaching assignments for the BSc in Pharmacy, proposed PharmD, PharmD for BSc in Pharmacy Students, and PharmD for Practicing Pharmacists were mapped to identify resources needed to offer the programs. Several new academic hires will be required, although some will be for a limited duration (see Section 6.2).

Table 6.1 Implementation of the PharmD Program

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
BScPharm Suspend admissions after 2016	x	x	x				
PharmD for BSc in Pharmacy Students Offered to students admitted to the BScPharm in 2014, 2015, and 2016 as the 4th year of their program				x	x	x	
PharmD Admit students in 2017				x	x	x	x

6.2 Staffing Plan

6.2.1 *Show how the number (head count and FTE), distribution and qualifications of teaching staff meet Council's requirements and the objectives of the program as a whole (as described in s. 1.6 above). Include the academic staff expertise to be recruited, if new staff are contemplated. Provide summary information of current academic staff and new hires who will be teaching in the proposed program in the following format (see sample table below).*

The Faculty has 42 faculty members involved in teaching (approximately 40 FTE). Twenty-two faculty members are tenured or tenure track, with the remaining faculty members in non-tenure track positions. Seventeen faculty members are in the Pharmaceutical Sciences Division and the remaining 25 are in the Pharmacy Practice Division. A summary of courses and the course coordinator by credential and specialization is presented below. Of note, all faculty members contribute to teaching in the program and, in many cases, more than one faculty member will be involved in teaching of a given course. However, only the course coordinator is listed in Table 6.2.1.1.

Table 6.2.1.1 PharmD courses and course coordinators by credential, specialization, and academic staff status

Courses	NAME	Earned credentials and specialization	Academic staff status
PHARM 201 Principles of Medicinal Chemistry	Velazquez, Carlos	PhD (Medicinal Chemistry)	Tenured (full-time)
PHARM 202 Pharmaceutics 1	Lavasanifar, Afsaneh	PhD (Pharmaceutics)	Tenured (full-time)
PHARM 203 Introduction to Pharmacology	Jurasz, Paul	PhD (Pharmacology)	Tenured (full-time)
PHARM 204 Physiology and Anatomy for Pharmacy 1	Patrick, Susan	PhD (Physiology)	Non-Tenure track (full-time)

PHARM 205 Physiology and Anatomy for Pharmacy 2	Patrick, Susan	PhD (Physiology)	Non-Tenure track (full-time)
PHARM 212 BASE 1	Sanghera, Ravina	BSc Pharm (Community pharmacy practice)	Non-Tenure track (full-time)
PHARM 213 BASE 2	Sanghera, Ravina	BSc Pharm (Community pharmacy practice)	Non-Tenure track (full-time)
PHARM 220 Patient Care Skills 1	Charrois, Teri	MSc (Pharmacy Practice)	Non-Tenure track (0.8 FTE)
PHARM 223 Patient Care Skills 2	Necyk, Candace	MSc (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 243 Pharmacotherapy 1	*New hire 1* *Summer 2016*	PharmD (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 254 Community Service Learning	Thompson, Ann	PharmD (Pharmacy Practice, Hypertension)	Non-Tenure track (full-time)
PHARM 302 Pharmaceutics 2	Loebenberg, Raimar	PhD (Pharmaceutics)	Tenured (full-time
PHARM 303 Essentials of Pharmacokinetics	Brocks, Dion	PhD (Pharmacokinetics)	Tenured (full-time)
PHARM 312 BASE 3	Ogbogu, Ubaka	PhD (Law)	Tenure track (full-time) –cross appointed to Faculties of Law & Pharmacy
PHARM 313 BASE 4	Makowsky, Mark	PharmD (Primary Care)	Tenured (full-time)
PHARM 320 Patient Care Skills 3	Bertholet, Renette	PharmD (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 323 Patient Care Skills 4	Hall, Jill	PharmD (Pharmacy Practice, Rheumatology)	Non-Tenure track (full-time)
PHARM 343 Pharmacotherapy 2	Simpson, Scot	PharmD (Epidemiology, Diabetes)	Tenured (full-time)
PHARM 344 Pharmacotherapy 3	*New hire 1* *Summer 2016*	PharmD (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 345 Pharmacotherapy 4	Sanghera, Ravina	BscPharm (Community pharmacy practice)	Non-Tenure track (full-time)
PHARM 346 Pharmacotherapy 5	Mitchell, Sharon	PhD (Infectious Diseases)	Non-Tenure track (full-time)
PHARM 354 Introductory Pharmacy Practice Experience 1	Gukert, Marlene	BscPharm (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 401 Toxicology and Pharmacogenomics	Seubert, John	PhD (Pharmacology)	Tenured (full-time)

PHARM 412 BASE 5	Guirguis, Lisa	PhD (Social and Administrative Pharmacy)	Tenured (full-time)
PHARM 413 BASE 6	Replacement of *Hall, Kevin (retired)*	PhD (Social and Administrative Pharmacy)	Tenure track (full-time)
PHARM 420 Patient Care Skills 5	Breault, Rene	PharmD (Pharmacy Practice, Hypertension)	Non-Tenure track (full-time)
PHARM 423 Patient Care Skills 6	Charrois, Teri	MSc (Pharmacy Practice)	Non-Tenure track (0.8 FTE)
PHARM 443 Pharmacotherapy 6	Mahmoud, Sherif	PhD (Pharmacy Practice, Neurology)	Non-Tenure track (full-time)
PHARM 444 Pharmacotherapy 7	Yuksel, Nese	PharmD (Pharmacy Practice, Women's Health)	Tenured (full-time)
PHARM 445 Pharmacotherapy 8	Necyk, Candace	MSc (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 446 Pharmacotherapy 9	Sadowski, Cheryl	PharmD (Pharmacy Practice, Geriatrics)	Tenured (full-time)
PHARM 448 Pharmacotherapy 10	Hughes, Christine	PharmD (Pharmacy Practice, Infectious Diseases)	Tenured (full-time)
PHARM 454 Introductory Pharmacy Practice Experience 2	Thompson, Ann	PharmD (Pharmacy Practice, Hypertension)	Non-Tenure track (full-time)
PHARM 543 Advanced Pharmacy Practice and Pharmacotherapy Integrating Seminar	Thompson, Ann	PharmD (Pharmacy Practice, Hypertension)	Non-Tenure track (full-time)
PHARM 554 Advanced Pharmacy Practice Experience 1 – Community Practice	Gukert, Marlene	BScPharm (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 555 Advanced Pharmacy Practice Experience 2 – Acute Care Practice	Gukert, Marlene	BScPharm (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 556 Advanced Pharmacy Practice Experience 3 – Selective	Gukert, Marlene	BScPharm (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 557 Advanced Pharmacy Practice Experience 4 – Elective	Thompson, Ann	PharmD (Pharmacy Practice, Hypertension)	Non-Tenure track (full-time)

Table 6.2.1.2 Staffing plan for the PharmD for BSc in Pharmacy Students is presented below. This staffing will be required for only 3 years (2017/18-2020/21). Extra funding needed will come from the tuition paid for the one additional term required.

Courses	NAME	Earned credentials and specialization	Academic staff status
PHARM 426 Experiential Learning – Part 4	Gukert, Marlene	BScPharm (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 428 Experiential Learning – Part 5	Gukert, Marlene	BScPharm (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 531 Evidence in Practice	Makowsky, Mark *and New hire (part-time sessional)Summer 2016*	PharmD (Primary Care)	Tenured (full-time)
PHARM 532 Patient Assessment	Breault, Rene *and New hire (part-time sessional) Summer 2016*	PharmD (Pharmacy Practice, Hypertension)	Non-Tenure track (full-time)
PHARM 537 Advanced Therapeutics, Collaboration and Professional Learning	Hall, Jill *and New hire (part-time sessional) Summer 2016*	PharmD (Pharmacy Practice, Rheumatology)	Non-Tenure track (full-time)
PHARM 536 Advanced Pharmacy Practice Experience – Selective in Patient Care	Gukert, Marlene	BScPharm (Pharmacy Practice)	Non-Tenure track (full-time)
PHARM 537 Advanced Pharmacy Practice Experience – Elective	Thompson, Ann	PharmD (Pharmacy Practice, Hypertension)	Non-Tenure track (full-time)
PHARM 538 PharmD Seminars	Thompson, Ann	PharmD (Pharmacy Practice, Hypertension)	Non-Tenure track (full-time)
PHARM 539 PharmD Seminars	Thompson, Ann	PharmD (Pharmacy Practice, Hypertension)	Non-Tenure track (full-time)

6.2.2   *Include brief explanations of academic staff categories (e.g., continuing, sessional, term) and workload expectations.*

The Faculty has several academic staff categories – tenure track, non-tenure track clinical, sessional, clinical academic colleague (CAC), and Clinical Preceptors. The majority of academic staff members fall under the categories of tenure track or non-tenure track clinical. The expectations for tenure track faculty members are outlined in the University of Alberta's Faculty Agreement and the Faculty of Pharmacy & Pharmaceutical Sciences Faculty Evaluation Committee Guidelines for Evaluation of Tenure Track Faculty Members. Tenure track faculty members are expected to be active in teaching, research and service. In addition, many tenure track faculty members in the Pharmacy Practice Division maintain a

clinical practice and are involved in teaching students during practice experiences. The Faculty of Pharmacy & Pharmaceutical Sciences has an active graduate education program (MSc and PhD) and most tenure track faculty members are also active in teaching in this program. Thus, the teaching loads listed in this proposal are not reflective of their overall loads. Non-tenure track clinical faculty members have responsibilities primarily in the areas of teaching (or in some cases administration). However, non-tenure track clinical faculty members are also expected to be involved in scholarly activity (and some non-tenure track clinical faculty members maintain a clinical practice and are involved in teaching students during practice experiences). The Faculty has criteria and procedures for evaluation of non-tenure track clinical faculty members that parallel those of the tenure track faculty members.

The Faculty has a limited number of sessional instructors. These instructors are typically hired on yearly contracts to help support development and delivery of teaching activities in the practice skills laboratory courses. The Faculty has a number of CACs who are critical to the delivery of the program. The CACs are involved in delivery of some instruction within the classroom. However, CACs are primarily responsible for teaching during practice experiences at sites throughout the province. Clinical Preceptors are individuals in the pharmacy profession who mentor students in their areas of expertise. Mentorship takes place in clinical settings that are approved by the Faculty to assure quality experiences that meet the educational outcomes of the program. Preceptors have specific educational responsibilities for students for the period of time when students are in clinical settings, but are not regular members of the faculty/ staff of the University and have no expectation of compensation. Preceptors are provided with 120 days of library access for the semester/term in which they are precepting.

6.2.3 *Provide a proposed teaching rotation that outlines the academic staff at launch and to maturity of the program (see sample table below) and shows clearly the plan for any cycling of courses. List also any non-academic staff who will teach in the program.*

Teaching staff will be drawn from current and future Faculty of Pharmacy and Pharmaceutical Sciences tenured and non-tenure track faculty members. Sessional staff with appropriate expertise may be offered teaching assignments. Teaching assignments are recommended by the Division Chairs and made by the Dean because of the non-departmentalized nature of the Faculty.

The table below illustrates the proposed course coordination assignments for courses delivered in the fall and winter terms of years 1-4, with the exception of practice experiences. The practice experience courses (PHARM 354, 454, 554, 555, 556, 557) will be coordinated by Marlene Gukert and Ann Thompson as outlined in the table in Section 6.2.1. As noted previously, in most cases, more than one faculty member is involved in teaching within a given course based on expertise. All faculty members teach in the program.

Table 6.2.3.1 Proposed course coordinators for required courses for the PharmD Program

Fall Year 1	Instructor	Winter Year 1	Instructor
PHARM 201 Principles of Medicinal Chemistry	Velazquez, Carlos	PHARM 202 Pharmaceutics 1	Lavasanifar, Afsaneh
PHARM 203 Introduction to Pharmacology	Jurasz, Paul	PHARM 205 Physiology and Anatomy for Pharmacy 2	Patrick, Susan
PHARM 204 Physiology and Anatomy for Pharmacy 1	Patrick, Susan	PHARM 243 Pharmacotherapy 1	*New hire 1 Summer 2016*
PHARM 212 BASE 1	Sanghera, Ravina	PHARM 213 BASE 2	Sanghera, Ravina
PHARM 220 Patient Care Skills 1	Charrois, Teri	PHARM 223 Patient Care Skills 2	Necyk, Candace
PHARM 254 Community Service Learning	Thompson, Ann	PHARM 254 Community Service Learning	Thompson, Ann

Fall Year 2	Instructor	Winter Year 2	Instructor
PHARM 302 Pharmaceutics 2	Loebenberg, Raimar	PHARM 344 Pharmacotherapy 3	*New hire 1 Summer 2016*
PHARM 303 Essentials of Pharmacokinetics	Brocks, Dion	PHARM 345 Pharmacotherapy 4	Sanghera, Ravina
PHARM 343 Pharmacotherapy 2	Simpson, Scot	PHARM 346 Pharmacotherapy 5	Mitchell, Sharon
PHARM 312 BASE 3	Ogbogu, Ubaka	PHARM 313 BASE 4	Makowsky, Mark
PHARM 320 Patient Care Skills 3	Bertholet, Renette	PHARM 323 Patient Care Skills 4	Hall, Jill

Fall Year 3	Instructor	Winter Year 3	Instructor
PHARM 443 Pharmacotherapy 6	Mahmoud, Sherif	PHARM 401 Toxicology and Pharmacogenomics	Seubert, John
PHARM 444 Pharmacotherapy 7	Yuksel, Nese	PHARM 446 Pharmacotherapy 9	Sadowski, Cheryl
PHARM 445 Pharmacotherapy 8	Necyk, Candace	PHARM 448 Pharmacotherapy 10	Hughes, Christine
PHARM 412 BASE 5	Guirguis, Lisa	PHARM 413 BASE 6	*Hall, Kevin replacement (retired) Summer 2016*

	Instructor		Instructor
PHARM 420 Patient Care Skills 5	Breault, Rene	PHARM 423 Patient Care Skills 6	Charrois, Teri

Fall Year 4	Instructor	Winter Year 4	Instructor
PHARM 543 Integrating Seminar	Thompson, Ann	PHARM 543 Integrating Seminar	Thompson, Ann

The PharmD for BSc in Pharmacy Students will be offered for three years as the proposed PharmD program is implemented. Students choosing to enroll in the program will be required to complete three terms in 12 months. Courses will be offered in all three terms/year for three years. Table 6.2.3.2 (below) outlines the proposed teaching rotation for the PharmD for BSc in Pharmacy Students.

Table 6.2.3.2 Proposed course coordination assignments for required courses for the PharmD for BSc in Pharmacy Students Program (3 years duration)

Spring/Summer	Instructor	Fall	Instructor	Winter	Instructor
PHARM 426 Experiential Learning – Part 4	Gukert, Marlene	PHARM 426 Experiential Learning – Part 4	Gukert, Marlene	PHARM 426 Experiential Learning – Part 4	Gukert, Marlene
PHARM 428 Experiential Learning – Part 5	Gukert, Marlene	PHARM 428 Experiential Learning – Part 5	Gukert, Marlene	PHARM 428 Experiential Learning – Part 5	Gukert, Marlene
PHARM 531 Evidence in Practice	Makowsky, Mark	PHARM 531 Evidence in Practice	*New hire (part-time sessional) Summer 2016*	PHARM 531 Evidence in Practice	*New hire (part-time sessional) Summer 2016*
PHARM 532 Patient Assessment	Breault, Rene	PHARM 532 Patient Assessment	*New hire (part-time sessional) Summer 2016*	PHARM 532 Patient Assessment	*New hire (part-time sessional) Summer 2016*
PHARM 537 Advanced Therapeutics, Collaboration and Professional Learning	Hall, Jill	PHARM 537 Advanced Therapeutics, Collaboration and Professional Learning	Breault, Rene	PHARM 537 Advanced Therapeutics, Collaboration and Professional Learning	Mahmoud, Sherif
PHARM 536 Advanced Pharmacy Practice Experience – Selective in Patient Care	Gukert, Marlene	PHARM 536 Advanced Pharmacy Practice Experience – Selective in Patient Care	Gukert, Marlene	PHARM 536 Advanced Pharmacy Practice Experience – Selective in Patient Care	Gukert, Marlene
PHARM 537 Advanced Pharmacy Practice Experience – Elective	Thompson, Ann	PHARM 537 Advanced Pharmacy Practice Experience – Elective	Thompson, Ann	PHARM 537 Advanced Pharmacy Practice Experience – Elective	Thompson, Ann

PHARM 538 PharmD Seminars	Thompson, Ann	PHARM 538 PharmD Seminars	Thompson, Ann	PHARM 538 PharmD Seminars	Thompson, Ann
PHARM 539 PharmD Seminars	Thompson, Ann	PHARM 539 PharmD Seminars	Thompson, Ann	PHARM 539 PharmD Seminars	Thompson, Ann

6.2.4 *For graduate programs, provide a detailed plan to organize the academic advising, supervision and monitoring of graduate students, and state the credentials, graduate teaching experience, master's committee work/supervision and PhD supervision experience of academic staff. For doctoral programs, a summary table such as the following would be helpful.*

Not Applicable

6.2.5 *Include CVs of core academic staff teaching in the program as well as key administrators (see CAQC's CV template). Be sure their permission has been given.*

Please refer to the Faculty of Pharmacy and Pharmaceutical Sciences website for further details on academic staff qualifications and areas of research. See: http://pharm.ualberta.ca/about-us/contact-us-and-people/people. Please note that the general cadre of faculty members to deliver the PharmD program is unchanged from those currently delivering the BSc Pharmacy program.

6.3 Scholarly and Creative Activity

6.3.1 *Describe what constitutes scholarship and/or creative activity for academic staff teaching in this program, and summarize the institutional expectations of academic staff with respect to scholarship and professional development as well as how these are assessed. Describe plans for supporting scholarly activities and professional development of academic staff (see Council's expectations regarding scholarship, research and creative activity in s. 3.7.3 of Council's Handbook).*

Expectations for scholarly and creative activity by academic staff are unchanged from the current BSc program as the same academic staff (plus some additional hires) will be involved. The BSc program will be replaced by the proposed PharmD program, and our existing MSc and PhD programs are unchanged. Expectations for tenure-track and non-tenure track academic staff are given below, as excerpted from our existing tenure-track and non-tenure track promotion and increment guidelines. Support for scholarly activities includes teaching loads that take into account research and graduate education expectations, research (wet and dry labs) and graduate student space, as well as generous startup packages for new hires. There is appropriate informational technology infrastructure in place to support scholarly and creative activities. Professional development involves a defined mentorship plan (developed and approved by Faculty Council in 2015), support for activities proposed by our Faculty Development and Seminar Committee, and travel support to meetings of learned societies where academic staff are presenting their research and can network with others in their field. There are also some internal financial resources to support research. Recommendations on funding applications from academic staff are made to the Dean by the Research Fund Allocation Committee.

Tenure-track scholarly activity/research (FROM THE FACULTY'S FEC GUIDELINES)

It is the responsibility of a staff member to make some contribution to scholarly activity/research within each review period [Faculty Agreement Article 7.05]. There are numerous acceptable ways, appropriate to the staff member's discipline, teaching, clinical practice and other functions, in which such a contribution may be made. The staff member is encouraged to seek financial support for scholarly activities from granting agencies or other sources.

Sustained financial support from granting agencies, following peer-review, is an important indicator of scholarly activity/research and development as an independent scholar. Non-peer-reviewed contracts and grants that result in peer-reviewed publication by the university staff member are also important. However, these must be distinguished from contract research projects which provide a service but do not normally result in peer-reviewed publication. Although the latter contract service-type research is not discouraged, it does not replace nor can it be used in lieu of peer-reviewed grant support and dissemination of knowledge.

In the interest of advancing knowledge through scholarly activity/research, the outcome of such activity must be made public. Scholarly activity and contribution to published knowledge therefore are normally not distinguishable. Following is a list of activities which are considered of a scholarly nature, but not intended to be all-inclusive.

1. Contributions to Published Scholarly Knowledge:
   - papers describing original research published in refereed periodicals.
   - patents and reports of invention
   - chapters or textbooks
   - non-refereed research publications
   - published abstracts of meeting presentations, etc.
   - review articles

2. Research-Related Activities:
   - preparation of grant applications
   - success in obtaining funding from granting agencies
   - research contracts received
   - supervision of graduate students
   - supervision of post-doctoral fellows
   - supervision of technicians, research assistants, and/or summer research students
   - dissemination of research results to funding agencies, government units and lay public
   - invitations to do presentations, particularly keynote presentations, at research meetings
   - invitations to serve as distinguished visitor at other universities
   - invitations to serve as guest editor for research publications and journals.

3. Contributions to Research Community:
   - journal editorship
   - journal editorial board membership
   - membership in granting agency committees
   - reviewer for grant application(s)
   - reviewer for journal(s)
   - visiting or guest lecturer (other academic establishments or professional bodies)
   - presentations at conferences
   - presentations at Faculty seminars, other departments or Faculties
   - unpublished abstracts of meeting presentations

4. Other Scholarly Activities:
   - book reviews
   - media presentations
   - preparation of newsletters
   - presentations at clinical rounds, workshops, forums
   - consultant/evaluation services/continuing education
   - supervision of residents/fellows
   - contributions to national or international guidelines
   - contributions to national or international task force documents
   - "other" activities suggested by the staff member and acceptable to the Dean and the FEC

Non-tenure track scholarly activity/research (FROM THE FACULTY NON-TENURE TRACK GUIDELINES)

It is the policy of the Faculty to emphasize and promote high quality scholarly activities for all faculty members. The evaluation of the candidate's scholarly program will be based upon both its productivity and quality. The Faculty, as does the University, recognizes scholarship in discovery, application, synthesis, or teaching as fulfilling a faculty member's obligation to conduct scholarly activity. The assessment usually will include:

- Publications: For non-tenure track clinical faculty members, scholarly activity is encouraged and will be defined broadly including publications related to teaching or pharmacy practice. Although a greater emphasis will be placed on original work published in peer-reviewed journals where the candidate is a primary author, collaborative work at any level of authorship will be valued. The relative quality of journals – examined in the light of journals available within the candidate's discipline and research focus – will be a factor. Electronic reprints of all relevant publications will be supplied by the candidate in the promotion portfolio. The role of the candidate in all publications since appointment at the University of Alberta must be clearly defined.
- Funding: Securing funding from sources outside the Faculty to support his/her scholarly efforts will be considered a plus, but is not required for promotion. Documentation will include descriptions of grants funded, and of grants submitted along with a description of their status including scores where relevant; comments of reviewers may be included. The role of the applicant in all funded, unfunded and

submitted grants must be clearly defined. The role of the candidate in all funded grants since appointment at the University of Alberta must be clearly defined. Potential and actual revenues to the University and Faculty from intellectual property licensing should also be defined.

- Peer recognition: Examples include invited or juried presentations at provincial, national or international scientific and professional meetings, awards (provincial, national, international), service on national or international review committees and editorial boards, publication of patent applications as well as election to national organizations that recognize excellence in the discipline.

- Quality of work and potential for advancement: Review of the candidate's scholarly efforts by peers, from within the University and outside reviewers, must conclude that the work is scholarly, creative, original and of high quality and significance.

- Additional information to be considered will include: contributed presentations at scientific and professional meetings; books, book chapters and monographs; manuscripts accepted for publication with a copy of the acceptance letter; invention disclosures, patent applications/awards.

6.3.2 *For doctoral proposals, include a tabular summary of research grants held by key academic staff involved in the program, both (i) in aggregate form, and (ii) by academic staff member, years of tenure of each grant, and source and amount of the grant.*

Not Applicable

6.4 Physical and Technical Infrastructure

Describe the facilities, laboratory and computer equipment (as applicable) available to meet the specialized demands of the program, as well as plans to address any deficiencies in what might be required.

The Faculty's current level of IT support, student study space, computer labs, and Wi-Fi networks are sufficient to support students in the proposed program.

The Faculty occupies space in three buildings connected by pedways: Medical Sciences Building, Katz Centre for Pharmacy and Health Research, and Edmonton Clinic Health Academy (ECHA). Student Services and the Dean's suite are located in the Medical Sciences Building between the Katz Building and ECHA. This space is a highly visible "front door" for the Faculty.

Faculty members in the Pharmaceutical Sciences Division have research lab and office space in the Katz Centre for Pharmacy and Health Research. The quality of the space is outstanding and has materially benefited our pharmaceutical sciences faculty members, graduate students and postdoctoral fellows.

Pharmacy Practice faculty members have office space in ECHA. This space is outstanding for offices, dry lab research and teaching. The proximity to nursing and public health has increased interactions to the benefit of all. Large lecture theatres and problem-based learning rooms are located in the Medical Sciences Building provide students an outstanding learning environment. New state-of-the-art pharmacy practice skills lab, pharmaceutics lab, computer lab, and student

space are located in Medical Sciences Building. Overall, the physical space available is excellent for the proposed program.

Some additional space to accommodate small group learning is required. The Faculty is working with University central scheduling/timetabling to identify options within existing resources.

6.5 Information Services
Provide an inventory and analysis of information resources to support the program (using standard library reference guides) and plans to deal with any deficiencies, and a description of student access to other information services.

Students in the PharmD program have access to the full breadth of the University of Alberta Libraries collections across all disciplines. While the majority of newly purchased resources are available electronically, the John W. Scott Health Sciences Library is their home library for access to print materials. A subject guide has been prepared to direct students to the resources most relevant to pharmacy practice (http://guides.library.ualberta.ca/pharmacy). These include abstracting and indexing databases, drug information databases, natural product resources, ebooks, and ejournals.

The library licenses all key Canadian drug information resources. Students have unlimited access to the Canadian Pharmacists Association's e-Therapeutics+ Complete database, which includes electronic access to the Compendium of Pharmaceuticals and Specialties, Therapeutic Choices, Minor Ailments, and Products for Minor Ailments. They also have unlimited online access to RxFiles, an academic detailing resource produced in Saskatchewan.

When possible, the library licenses resources that provide downloadable applications for use on mobile devices. Students are able to download such products as Lexicomp, a comprehensive drug information resource, and Dynamed, a point-of-care tool that provides evidence-based summaries about diseases and drugs. This access is essential for PharmD students during their clinical placements, since wifi or even open internet access cannot be guaranteed in local pharmacies. While students are involved in rotations within Alberta Health Services (AHS) they are eligible to access the online resources licensed by the AHS Knowledge Resource Service (http://krs.libguides.com/home), and can also direct questions to the AHS Drug Information Centre which is located within the John W. Scott Health Sciences Library.

The library endeavours to ensure that books relevant to the curriculum, including textbooks, are available either electronically or in print. Various lists have been used to ensure a comprehensive and current collection. All titles from the Alberta Pharmacists' Association list of required resources for pharmacies are available, and the American Association of Colleges of Pharmacy's *Basic Resources for Pharmacy Education* has been used as a benchmarking tool to ensure there are no subject gaps in the collection.

The Pharmacy Librarian is a direct contact for the students who require library assistance. The librarian provides instruction regarding information resources, advanced searching techniques, and citation management within curriculum courses upon request by professors in the Faculty. She is also available to meet with students individually when they conduct literature searches for their

research projects. Students can also contact the library for assistance via telephone, text, email, or online chat, or can drop by the library for immediate assistance during operating hours.

In the Faculty of Pharmacy and Pharmaceutical Sciences most recent accreditation process, no deficiencies in the library's collections and services were identified. The Pharmacy Librarian continues to work closely with faculty members to ensure that newly identified resource needs are met when possible.

SECTION 7: CONSULTATION AND ASSESSMENT

7.1 Program Evaluation

Describe the criteria and methods which will be used to ensure the ongoing quality of the program. Include mechanisms for periodic review using external evaluation. Include the expected outcomes, key performance indicators and performance targets for the program.

A comprehensive assessment plan for the new program has been developed based on the current assessment plan and activities. There are three main areas of assessment including the Academic Program, Student Experience, and Faculty Experience. Each major area of evaluation has sub areas for which program outcomes have been identified based on Canadian Council for Accreditation of Pharmacy Programs (CCAPP) standards and internal program goal documents. Measures and processes that will be used to assess each outcome as well as the frequency of implementation including identifying parties responsible for generating, analyzing and interpreting evaluation data and results are defined. The plan is extensive in nature and is therefore attached in full in Appendix K.

7.2 Consultation / Accreditation or Regulatory Approval

7.2.1 *Building on s. 2.3, outline the consultation that has occurred with other institutions, organizations or agencies, including advisory bodies formed by the applicant institution to assist in program design, implementation and evaluation. This should include, where appropriate, professional associations, regulatory agencies and/or accrediting bodies, and prospective employers.*

The Faculty of Pharmacy and Pharmaceutical Sciences consulted with other institutions, and organizations throughout the development and review process. Pharmacy organizations and members of the practice community were appointed to the Steering Committee and Working Groups. The Alberta College of Pharmacists has membership on the Curriculum Committee and Faculty Council.

See Appendix G Experiential Education Stakeholder Engagement and Appendix I Consultations with External Stakeholders

University of Alberta faculties and administrative offices provided ongoing support and consultation throughout the development of the proposed PharmD program.

See Appendix L Consultations within University of Alberta

7.2.2 *If the program is subject to accreditation or approval of a regulatory body, provide a description of the review process, requirements of the body and timing of the review (if in process). If possible, a chart or table may be useful to outline accreditation or regulatory approval requirements.*

The Faculty's next accreditation was scheduled for 2017. However, with the planned conversion from the BSc to the PharmD degree, a one year extension was requested and granted in June 2015. The primary rationales for this request were:

- Deferring the accreditation by one year allows us to complete our PharmD implementation activities and focus the accreditation self-study on the new curriculum, rather than on the BSc program that will be phased out. Given the extensive effort being expended to develop a world-class PharmD curriculum, this delay allows us to prepare the self-study without competing with curricular development efforts.
- Because existing 4th year BSc students in 2017 will be given the opportunity to graduate with the PharmD in 2018, it may be possible to proceed with full rather than provisional accreditation with a one year delay.
- Our interim accreditation report was received very positively by the CCAPP Board in 2014. Thus, there are no concerns about the quality of our current BSc program.

By granting this extension, the accrediting body is also demonstrating strong support for implementing the PharmD in 2017 as proposed.

See Appendix M Canadian Council for Accreditation of Pharmacy Programs

7.2.3 *If not already covered in 7.2.2., indicate how graduates will meet professional or regulatory expectations.*

Addressed in 7.2.2

7.3 Reports of Independent Academic Experts

CAQC views external peer review, which can be both formative and summative, as foundational to ensuring the quality of academic programs. In order to strengthen the proposal, before the proposal is finalized, the institution should consult with one or more independent academic experts it selects from outside the institution to provide advice regarding all aspects of the program. The report(s) of these external independent academic experts should be provided, along with the institution's response to the report(s). If an institution wishes a program proposal to be exempted from the normal requirement of an assessment by an external expert, it must provide a compelling case as part of its request for a Fully Expedited Review. Short résumés of the academic experts involved and a rationale as to why they were selected should be provided (see CAQC's guidelines with respect to the selection and use of Independent Academic Experts in Appendix I of the CAQC Handbook).

SECTION 8: OTHER

8.1 Adverse Claims or Allegations

Disclose any adverse claims or allegations that might affect this application or be of concern to Council.

Not applicable

8.2 Statement of Institutional Integrity

Include a signed Statement of Institutional Integrity (see Council template on web site).

8.3 Other documentation

Provide any other supporting documents such as the Graduate Program Handbook, Faculty Handbook, current calendar, cyclical review of programs policy, etc. that would add support to the applicant's case and would help reviewers (provide website links, if available).

List of Appendices

Appendix A Program Goals and Outcomes

Appendix B Program and Course Overviews

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Appendix N Canadian Council for Accreditation of Pharmacy Programs

Appendix A - Program Goals and Outcomes

University of Alberta
Doctor of Pharmacy (PharmD) Program

Goals

The goal of the program is to graduate competent and confident practitioners prepared to enter pharmacy practice. Graduates will be prepared to provide quality and safe patient centered care in Alberta's dynamic health care environment and diverse settings across Canada's healthcare system. The program prepares graduates to be future leaders, and lifelong learners who will:

- Meet the health needs of patients by taking responsibility for medication management of common conditions and diseases

- Apply their expertise in knowledge of medications (including access to medications) and disease management when providing patient care

- Work effectively in independent, intraprofessional, collaborative, and interprofessional team-based health care delivery models

- Educate patients, public and other health care professionals regarding medication therapy to treat and prevent diseases, and maintain wellness

- Advocate for and support patient decision making regarding medication therapy

- Manage daily pharmacy practice, compounding and distribution of medications

- Anticipate change and continually adapt to meet challenges of professional practice

- Advance pharmacists' professional contributions in the health care system, the profession, and society throughout their careers

- Fulfill ethical, legal and professional obligations to the profession, the community and society at large

- Prepare for development of further expertise in areas of pharmaceutical sciences, patient care, public health, social and administrative pharmacy, business, management, leadership, health policy, research and education

Outcomes

The program outcomes for the Doctor of Pharmacy program are based on the Association of Faculties of Pharmacy of Canada (AFPC) *Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada* (2010). In addition, the outcome statements considered: Standards of Practice (Alberta College of Pharmacists, 2011), Competency Profile for Alberta Pharmacists (ACP Competencies ACP, 2010), Professional Competencies for Canadian Pharmacists at Entry to Practice (National Association of Provincial Regulatory Authorities, 2013), Centre for the Advancement of Pharmacy Education Educational Outcomes (2013), The Draft CanMEDS 2015, Accreditation Standards for the First Professional Degree in Pharmacy Programs (CCAPP, 2013), ACCP Position Statement: Educational Outcomes Necessary to Enter Pharmacy Residency Training (2014), and the Interprofessional Learning Pathway Competency Framework (http://www.hserc.ualberta.ca).

Refer to the introduction and other sections of the AFPC Educational Outcomes document (e.g. glossary).

OUTCOMES RELATED TO PATIENT CARE

Outcome

Graduates from the University of Alberta fulfill this educational outcome in all sites where licensed pharmacists provide patient care either as an integral component of the dispensing of medications, or as a professional service provided independently from the dispensing of medications.
This means that graduates:
  i. **possess** the core knowledge, skills and attitudes required of pharmacists to:
     • manage the medication therapy of patients who require the pharmacist's participation in their care;
     • manage the medication therapy of patients who are willing and able to accept the responsibilities required by this care;
     • manage the medication therapy of patients with common medication-therapy problems and patients who require urgent care[*];
     • identify products or devices to support diagnostic, point-of-care testing, and self-monitoring of patients' health status;
     • provide basic first aid and CPR;
     • administer injections in accordance with laws and regulations;
     • provide care in accordance with accepted frameworks that expand the pharmacist's scope of practice (e.g. prescribing medications, ordering and interpreting laboratory tests to guide treatment decisions;
     • assist in patients' self-care;
     • support / encourage self-management of chronic conditions;
     • recommend appropriate sources of support[†] for patients experiencing common difficulties in daily living[‡];
     • advise patients on common, current health promotion programs, and;
  ii. **are able to acquire** the knowledge and skills required to manage patients with uncommon or highly complex medication-related needs, or;
  iii. are able to appropriately refer patients for the management of medication therapy needs that fall beyond their individual scope of practice, and:
  iv. are able to appropriately triage patients to other primary care providers for needs that fall outside the scope of practice of pharmacists.

A. Assess patients

1.1 Develop and maintain professional, collaborative relationships required for patient care.
1.1.1   establish and maintain a professional relationship with each patient or their caregiver; 1.1.2   demonstrate that the patient's goals are the priority; 1.1.3   determine when it is ethically and professionally appropriate to involve caregivers; 1.1.4   acknowledge and respect the roles and responsibilities of the pharmacist, the patient and/or caregivers, and the patient's other health care professionals.

1.2 Elicit and complete an assessment of required information to determine the patient's medication-related and other relevant health needs.
1.2.1   elicit the reason(s) for the patient's visit to the pharmacy or encounter with the pharmacist; 1.2.2   obtain and evaluate relevant history from the patient, his/her chart, electronic health record, caregivers and other health care professionals; 1.2.3   order, retrieve and assess relevant lab tests, point-of-care tests, and diagnostic assessments; 1.2.4   perform and interpret findings of relevant physical assessments that are required to determine appropriate medication therapy, and; 1.2.5   complete an assessment of the patient's ability to take / use / administer his/her medications.

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[*]   See AFPC Educational Outcomes glossary. Urgent medication therapy needs are those that require urgent care by the pharmacist or urgent referral to primary care providers (e.g. via ambulance or referral to ER).

[†]   Graduates are **not** expected to possess knowledge of specific community resources: they must only know that such services / resources may exist and be able to direct the patient regarding who to contact.

[‡]   Difficulties with, for example, transportation, activities of daily living, emotional, spiritual needs.

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1.3 Assess if a patient's medication-related needs are being met.
1.3.1   evaluate the safety and effectiveness of a patient's medications with consideration of the patient's values and preferences, characteristics, conditions, functional capabilities, other medications and access to health care / monitoring;
1.3.2   determine whether a patient is appropriately managing his/her therapy, including appropriate administration and adherence in particular for chronic disease management;
1.3.3   determine whether a patient's medications are achieving the desired goals including consideration of efficacy and adverse effects;
1.3.4   determine whether a patient requires medication assessment and reconciliation;
1.3.5   where appropriate, identify a patient's medication-related needs as specific medication-therapy problems, and:
1.3.6   determine a patient's need for additional care or services.

1.4 Determine a patient's priority health and wellness needs.
1.4.1   recognize signs, symptoms and risk factors that relate to medical or health problems that fall into the scope of practice of other health care professionals.[§];
1.4.2   recognize signs and symptoms associated with medical emergencies;
1.4.3   recognize problems with activities of daily living important to the patient's well-being, and:
1.4.4   identify opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care.

B. Plan Care

1.5   Refer patients for management of priority health and wellness needs that fall beyond the scope of practice of pharmacists

1.6 Develop a patient-centered care plan that addresses a patient's medication-therapy needs and priority health and wellness needs.
1.6.1   prioritize a patient's medication-related needs;
1.6.2   establish goals of medication therapy with the patient (desired endpoints, target values and timeframes for medication therapies);
1.6.3   assess alternative strategies and negotiate the therapeutic option best suited to the patient;
1.6.4   integrate the recommended therapeutic options for a patient's medication-related needs into a co-ordinated plan;
1.6.5   determine monitoring parameters for desired therapeutic endpoints and potential adverse effect, specifying target values and start, frequency and end time-points for monitoring;
1.6.6   decide specific actions to be taken by the pharmacist as necessary for management of medication-related needs, specifically determining whether it is appropriate to: - dispense a medication according to a new prescription;   - dispense an authorized refill of a medication;   - authorize an extension of refills of a medication;   - modify a patient's medications;   - recommend changes in medications;   - prescribe medications or therapies;   - provide information to support patient self-care;   - administer a medication or vaccine, and/or;   - refer the patient to other health care professionals for assessment and management;
1.6.7   determine a patient's need for information or other support to facilitate his/her management of activities of daily living, health promotion or well-being, and:
1.6.8   negotiate the responsibilities of the pharmacist and patient, and when other health care professionals should be contacted.

[§]   Including, for example, signs and symptoms of diabetes mellitus, hypertension, arthritis, stroke, cardiac disease.

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1.7 Implement the care plan.
1.7.1   undertake specific actions as specified in the care plan (e.g. prescribing, ordering lab tests, administering medications or vaccines);
1.7.2   optimize patient safety, confidentiality, and privacy;
1.7.3   educate the patient regarding the care plan to facilitate understanding and adherence;
1.7.4   facilitate continuity of care through referral and communication with relevant care providers;
1.7.5   convey information on maintaining and promoting health;
1.7.6   convey information about available social support services to assist with daily living, and;
1.7.7   schedule required follow-up in accordance with a patient care plan.

C. Follow-up and Evaluate

1.8 Elicit clinical and / or lab evidence of patient outcomes.
1.8.1   determine the clinical status of the patient, including completing physical assessments required for monitoring of medication therapy;
1.8.2   evaluate the efficacy of the care plan relative to the desired goals;
1.8.3   evaluate the safety of the care plan including the presence of adverse drug reactions or effects;
1.8.4   identify any medication errors or close calls (see glossary)(), and:
1.8.5   determine changes in pharmacotherapy that are required.

1.9 Assess and manage patients' new medication-related needs.

1.10 Manage healthcare needs of patients during transitions of care.

D. Document

1.10 Support the continuity of patient care by documenting their patient care activities
1.10.1   document in a timely, retrievable, usable manner
1.10.2   fulfill professional responsibilities for documentation
1.10.3   report and document the reporting of adverse events and close calls.

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OUTCOMES RELATED TO COMMUNICATION

2.1. Communicate non-verbally and verbally with others.
  2.1.1. inquire about and explore patient's beliefs, values, preferences, context, expectations, and health care goals
  2.1.2. use active listening skills and respond appropriately;
  2.1.3. exhibit empathy, tact and respect in their dealings with others;
  2.1.4. demonstrate sensitivity, respect and empathy in intercultural and inter-professional situations;
  2.1.5. when speaking, use organized processes and appropriate, precise expressions and vocabulary that are clear and accurate;
  2.1.6. tailor the content of their communication to specific level of understanding, needs, contexts and audiences, and:
  2.1.6 adapt their communication techniques to facilitate efficient and effective clinical encounters.

2.2. Communicate in writing.
  2.2.1. write clearly, using organized processes and appropriate vocabulary;
  2.2.2. correctly apply the rules of syntax, grammar and punctuation, and:
  2.2.3. adapt the content of their arguments to specific contexts and target audiences.

2.3. Present information.
  2.3.1. appear comfortable, engage the audience, use appropriate tone and pace, and use nonverbal language appropriately;
  2.3.2. are organized and can set and adhere to appropriate time limits, and:
  2.3.3 respond to and manage interaction with the audience.

2.4. Use communication technology.
  2.4.1. demonstrate sufficient understanding of information systems to integrate computer and related technology into effective communication, and;
  2.4.2. use effective communication skills regardless of the media employed, including effective use of visual and educational aids.

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OUTCOMES RELATED TO COLLABORATION

3.1. Function as members of teams.	
3.1.1	demonstrate commitment and active participation in collaborative care;
3.1.2	establish a climate of shared values and mutual respect necessary to meet patient care needs
3.1.3	accept leadership roles where appropriate;
3.1.4	actively make their expertise available to others and willingly agree to share relevant information, using language that can be understood by all;
3.1.5	clarify roles, responsibilities and expertise of team members, identifying overlaps and gaps;
3.1.6	recognize and respect the roles, responsibilities and competence of other professionals;
3.1.7	make their points of view known, listen to and respect the opinions of others, defend points of view;
3.1.8	contribute to planning, organizing and performing of work to be done, and integrating evidence while evaluating the results;
3.1.9	apply team process skills (including team goals, meetings, documentation, policies);
3.1.10	respect the rules established by the group;
3.1.11	help maintain a healthy work environment and manage conflict by applying appropriate conflict management models and effective communication techniques;
3.1.12	support continued efforts of the group by providing positive feedback, including evidence of progress and impact, and:
3.1.13	evaluate team effectiveness and team practice.

3.2 Support collaborative care in a community setting with geographically distinct centres of care.	
3.2.1	develop and maintain collaborative relationships with a network of local health care professionals and care providers;
3.2.2	clarify pharmacist's roles and responsibilities that are acceptable / appropriate;
3.2.3	fulfill commitments for provision and follow-up of care;
3.2.4	adapt their roles in teams and networks of care to the circumstances and requirements, and;
3.2.5	participate in local health initiatives as requested and appropriate.

3.3 Work collaboratively with the patient and his/her health care professionals to provide care and services that facilitate management of the patient's health needs.	
3.3.1	negotiate the care and services that the pharmacist and other members of the health care team will provide as consistent with laws / regulations relevant to collaborative care;
3.3.2	ensure attainment and maintenance of training / certification / credentials required to provide collaborative care or to fulfill medical directives / delegation;
3.3.3	ensure legality of collaborative practice agreements / medical directives / delegation agreements;
3.3.4	plan the provision of care in a coordinated fashion;
3.3.5	provide agreed upon care and services;
3.3.6	document the provision of care and services, and:
3.3.7	communicate and review the care / services provided and patient status / outcome.

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OUTCOMES RELATED TO PRACTICE MANAGEMENT

4.1 Manage their personal practice.
  4.1.1   set priorities and manage their time to balance patient care, workflow and practice requirements, and;
  4.1.2   adapt their practice to fulfill evolving professional roles.

4.2 Manage the safe and efficient distribution of medications.
  4.2.1   utilize inventory control concepts to maintain an inventory control system;
  4.2.2   manage the distribution[**] of medication in a variety of settings,
  4.2.3   manage compounding drug or blood products and preparation of sterile products;
  4.2.4   evaluate the factors critical to safe and efficient medication distribution systems including pharmacy layout / design, workflow, technology and automation) and;
  4.2.5   anticipate, recognize and manage human, environmental and medication distribution situations that place patients or health care workers at risk

4.3 Participate in quality assurance and improvement programs.
  4.3.1   evaluate the quality of care and cost effectiveness of services they provide;
  4.3.2   disclose, manage and report adverse drug events;
  4.3.3   disclose, manage and report errors, incidents and unsafe practices;
  4.3.4   report an adverse reaction to the Canadian Adverse Drug Reaction Monitoring Program;
  4.3.5   discuss medication errors with patient, prescriber and others, as appropriate;
  4.3.6   activate disaster response plan as appropriate to the context;
  4.3.7   create and maintain a working environment that promotes safety;
  4.3.8   participate in formal planning for practice change and implementation of services to meet patient's needs and/or improve the quality of care provided, and:
  4.3.9   adapt to change, providing new or emerging services as consistent with practice change plans.

4.4 Manage the staff under their supervision.
  4.4.1   supervise members of the pharmacy team to ensure competent performance of functions;
  4.4.2   ensure that staff are delegated and undertake functions appropriate to their training and legislation;
  4.4.3   manage workload to prioritize provision of professional services, and:
  4.4.4   function as a role model for staff.

4.5 Maintain the sustainability of the practice.
  4.5.1   understand the impact of funding and payment policies on the provision of professional services;
  4.5.2   create a business plan for the provision of professional services;
  4.5.3   participate in strategic planning for their practice site;
  4.5.4   understand marketing principles in the context of supply and demand for professional services, and;
  4.5.5   incorporate the use of technology.

4.6 Oversee record keeping to ensure safe and efficient patient care
  4.6.1   address barriers to safe and efficient patient care arising from the health information technology or other method of organizing, maintaining and retrieving practice setting records in use in the practice setting;
  4.6.2   recommend appropriate record-keeping procedures and technologies for maintaining the integrity, security, and permanence of practice setting records, and
  4.6.3   consider implications of the Alberta Freedom of Information and Protection of Privacy Act (FOIPP), the Alberta Health Information Act (HIA), and other applicable legislation.

[**]   See AFPC Educational Outcomes glossary

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OUTCOMES RELATED TO ADVOCACY AND LEADERSHIP

5.1 Interpret the advocacy role of pharmacists / profession of pharmacy.
- 5.1.1   describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism;
- 5.1.2   explain the role of the profession in advocating collectively for health and patient safety, and:
- 5.1.3   describe how policy and procedures impact on the health of the populations served.

5.2 Promote the health of individual patients, communities, and populations.
- 5.2.1   facilitate patient's interaction with the health care system through advice, education and/or guidance;
- 5.2.2   work with patients to address determinants of health that affect them;
- 5.2.3   support patient's access to required health services by representing or speaking on behalf of patients ;
- 5.2.4   represent patient's interests through participation in policy and procedure development within health systems;
- 5.2.5   implement health promotion activities, participate in public health campaigns and patient safety initiatives that are directed at disease prevention, risk factor reduction and/or harm minimization[††];
- 5.2.6   undertake relevant public health screening processes for early disease detection, and;
- 5.2.7   plan and implement public health promotion education and awareness raising campaigns with other health professionals.

5.3 Support the role of pharmacists in evolving health care systems.
- 5.3.1   promote the impact of the pharmacist on patient outcomes;
- 5.3.2   promote the role of pharmacists in the development and implementation of health procedures and policies, and:
- 5.3.3   accept a leadership role to support the vision for advancement of the profession of pharmacy.

5.4 Demonstrate leadership in practice.
- 5.4.1 identify characteristics that reflect leadership versus management;
- 5.4.2 demonstrate initiative when confronted with challenges;
- 5.4.3 demonstrate ability to participate in committees and professional activities to offer your perspective regarding changes and improvements in the profession and health care;
- 5.4.4 develop new ideas and approaches to improve quality of overcome barriers to advance the profession;
- 5.4.5 engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals, and:
- 5.4.6 conduct a risk-benefit analysis for implementation of an innovative idea.

[††]   See AFPC Educational Outcomes. Adapted, with permission, from the draft Primary Health Care Pharmacist Competencies, ADAPTS (Access to quality Drug therapy- Applying Pharmacists' knowledge to the primary care System, personal communications Natalie Kennnie, March 2010.

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OUTCOMES RELATED TO EDUCATION AND SCHOLARSHIP

6.1 Demonstrate a thorough understanding of the fundamental knowledge required of pharmacists and apply this knowledge in daily practice.
    6.1.1   critically evaluate the integrity, reliability, validity, trustworthiness, and applicability of health-related research and literature;
    6.1.2   rationalize their recommendations and decisions with appropriate, accurate explanations and best evidence;
    6.1.3   rely on professional experience to develop solutions to routine, previously encountered problems;
    6.1.4   utilize established decision-making frameworks when faced with new situations to identify, analyze and develop solutions to problems, and:
    6.1.5   undertake and apply learning required to manage new problems.

6.2 Provide drug information and recommendations.
    6.2.1   identify needs for information, recommendations and decisions on medications;
    6.2.2   conduct a systematic search for evidence using a variety of search methods and tools;
    6.2.3   critically analyze information including primary research articles;
    6.2.4   determine plausible solutions and select the most appropriate recommendation;
    6.2.5   communicate information / recommendations;
    6.2.6   evaluate the usefulness of the information provided, and:
    6.2.7   document the information provided.

6.3 Educate regarding medications and appropriate medication use, including the pharmacist's role.
    6.3.1   employ knowledge of teaching and learning principles and techniques;
    6.3.2   identify learning needs of the audience;
    6.3.3   consider health issues and concerns in the lay media influencing patients' information concerns and health goals;
    6.3.4   select educational techniques appropriate for the learners;
    6.3.5   select and organize content;
    6.3.6   implement their educational plans;
    6.3.7   assess the outcomes of their education, and:
    6.3.8   evaluate the outcomes of the education session.

6.4 Apply principles of scientific inquiry and critical thinking while participating in practice-based research.
    6.4.1   understand the need for the generation and discovery of new information as it pertains to the continuous development of the profession, innovations in practice and optimization of pharmacotherapy;
    6.4.2   recognize relevant practice or medication use problems;
    6.4.3   define the parameters of relevant problems;
    6.4.4   retrieve and assess reports/literature relevant to identified problems;
    6.4.5   formulate research questions/hypotheses;
    6.4.6   design practice-based research projects to address research questions, and:
    6.4.7   contribute to the development of new knowledge by participating in practice-based research projects.

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OUTCOMES RELATED TO PROFESSIONALISM

7.1 Demonstrate professionalism throughout patient encounters.
- 7.1.1   show respect for patients by acknowledging the patient as a person, listening actively and considering their needs and expectations;
- 7.1.2   accept responsibility for recognizing and meeting patients' medication therapy needs;
- 7.1.3   maintain patient confidentiality, and:
- 7.1.4   maintain appropriate boundaries with patients.

7.2   Practice in a manner which assures primary accountability to the patient.
- 7.2.1   demonstrate commitment to excellence in all aspects of practice
- 7.2.2   involve the patient in decision-making, respecting their right to make their own choices;
- 7.2.3   fulfill requirements for obtaining patient consent;
- 7.2.4   recognize the role of culture and social determinants of health on health outcomes and disparities in access to quality care
- 7.2.5   examine how their own culture and beliefs can play a role in how they care for a patient;
- 7.2.6   demonstrate an attitude that is respectful of different cultures to advance patient-centred culturally sensitive healthcare (considering race, ethnicity, underserved populations, social justice, religion, and sexual orientation);
- 7.2.7   assess a patient`s health literacy and modify communication strategies to meet patient needs;
- 7.2.8   integrate patient preferences related to culture, beliefs and practices;
- 7.2.9   use ethical frameworks as one component of professional judgement;
- 7.2.10   prioritize patient needs, accepting inconvenience and subordinating their personal interests to those of their patients;
- 7.2.11   ensure the continuity of patient care, abiding by the principle of nonabandonment, and:
- 7.2.12   recognize and manage situations presenting ethical dilemmas including conflicts of interest.

7.3   Maintain their competence to practice through life long learning.
- 7.3.1   adhere to regulatory requirements for maintenance of competence as consistent with the self-regulating status of a health professional;
- 7.3.2   evaluate their practice to identify areas for continuing professional development;
- 7.3.3   acknowledge and reflect on errors, omissions and close calls to identify limitations in competence / performance;
- 7.3.4   seek and accept feedback to identify limitations or strengths in competence / performance;
- 7.3.5   recognize their limits of competence and seek assistance;
- 7.3.6   plan and undertake self-directed learning activities to support maintenance of competence and professional development;
- 7.3.7   incorporate learning into their practice;
- 7.3.8   assess the impact of learning on competence and practice performance, and:
- 7.3.9   document their maintenance of competence

7.4 Practice in manner demonstrating professional accountability.
- 7.4.1   comply with the legal and regulatory requirements of practice;
- 7.4.2   respect and fulfill professional standards of practice;
- 7.4.3   be accessible to patients and other health care professionals;
- 7.4.4   fulfill their professional tasks and commitments to patients in a diligent, timely, reliable, respectful manner;
- 7.4.5   accept responsibility for their decisions and recommendations with patients and colleagues;
- 7.4.6   use health care resources appropriately, including human and financial resources;
- 7.4.7   maintain a professional image, using appropriate language and demeanour;
- 7.4.8   maintain their professional composure even in difficult situations;
- 7.4.9   maintain appropriate professional boundaries, and
- 7.4.10   demonstrate accountability to patients, society, and the profession by recognizing and responding to societal expectations of the profession.

7.5   Display a sense of pride in and commitment to the profession and its evolving role in the health care system.
- 7.5.1   participate in peer review and quality assurance processes;
- 7.5.2   participate in education of future pharmacists by making practice-based learning opportunities available as a mentor / preceptor;
- 7.5.3   adapt their practice to provide all professional services required according to pharmacist's scope of practice;

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7.5.4   support the professional organizations in their efforts to advance the professional role of pharmacists, and:

7.5.5   contribute to the planning for implementation of change including strategies to identify and overcome barriers, and to capitalize on facilitators.

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Term	Spring/Summer	Fall	Winter

Term: Advanced Experiential Education (32 weeks) over two terms

Y4
- Community
- Acute Care
- Selective
- Elective (may be non-patient care)
- Integrating Seminar

Y3
- Elective (one term) — Research elective may be taken in Y2
- Elective (one term) — Research elective may be taken in Y2
- Elective (one term) — Research elective may be taken in Y2
- Pharmaceutical Sciences
- Introductory Experiential Education – Acute Care (4 weeks)
- BASE – Behavioural, Social, Administrative Pharmacy and Evidence
- Pharmacotherapy Modules
- Patient Care Skills

Y2
- Introductory Experiential Education – Community Pharmacy (4 weeks)
- Pharmaceutical Sciences
- BASE – Behavioural, Social, Administrative Pharmacy and Evidence
- Pharmacotherapy Modules
- Patient Care Skills

Y1
- Pharmacotherapy Modules
- BASE – Behavioural, Social, Administrative Pharmacy and Evidence
- Pharmaceutical Sciences, Biomedical Sciences
- Patient Care Skills
- Community Service Learning
- IntD 410/Essentials of Collaborative Practice

Interprofessional Education (vertical side bar)

PR2 (Pre requisite yr. 2): Org Chem | Biochem | Microbiology | Stats | Sciences, Social Sciences, Humanities

PR1 (Pre requisite yr. 1): Chemistry | Org Chem | Biology | Math | Writing Studies | English

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Course Overview

	Credits	First Year Fall	Credits (17.5)	First Year Winter	Credits (18.5)	Y1 Total (36)
		Introduction to Pharmacology	3	Pharmaceutics 1	3	
		Principles of Medicinal Chemistry	3	Physiology and Anatomy for Pharmacy 2	3	
		Physiology and Anatomy for Pharmacy 1	3	Pharmacotherapy 1	3	
		BASE 1	3	BASE 2	3	
		Patient Care Skills 1	3	Patient Care Skills 2	3	
		Essentials of Collaborative Practice (IntD 410)	1	Essentials of Collaborative Practice (IntD 410)	2	
		Community Service Learning	1.5		1.5	
Second Year Spring/Summer	Credits (4)	**Second Year Fall**	Credits (15)	**Second Year Winter**	Credits (15)	Y2 Total (34)
Introductory Pharmacy Practice Experience 1 – Community Practice	4	Pharmaceutics 2	3	PMCO 3 (Cardiovascular)	3	
		Essentials of Pharmacokinetics	3	PMCO 4 (GI/Nutrition/Derm/Opth)	3	
		PMCO 2 (Lab Values/Fluid & Lytes/Nephrology/Urology/Endocrine)	3	PMCO 5 (Infectious Diseases)	3	
		BASE 3	3	BASE 4	3	
		Patient Care Skills 3	3	Patient Care Skills 4	3	
Third Year Spring/Summer	Credits (4)	**Third Year Fall**	Credits (15)	**Third Year Winter**	Credits (15)	Y3 Total (37)
Introductory Pharmacy Practice Experience 2 – Acute Care Practice	4	PMCO 6 (Sexual & Reproductive Health/MSK/Joint)	3	Toxicology/Pharmacogenomics	3	
Elective Any term (spring/summer, fall or winter) normally in Y3. (Research elective may be taken in Y2.)	3	PMCO 7 (Pain/Oncology)	3	PMCO 9 (Special Populations)	3	
		PMCO 8 (Neurology/Psychiatry)	3	PMCO 10 (Infectious Diseases /Transplant)	3	
		BASE 5	3	BASE 6	3	67
		Patient Care Skills 5	3	Patient Care Skills 6	3	

Fourth Year Spring/Summer	17	Fourth Year Fall	17	Fourth Year Winter	Y4 Total Credits over 2 terms (34)
Advanced Pharmacy Practice Experience 1 – Community Practice**					8
Advanced Pharmacy Practice Experience 2 – Acute Care Practice**					8
Advanced Pharmacy Practice Experience 3 – Selective Patient Care**					8
Advanced Pharmacy Practice Experience 4 – Elective**					8
PharmD Integrating Seminar (1 cr x 2 in terms with patient care experiences)					2

**Each rotation is 8 weeks long Each semester is 16 weeks.

PharmD for BSc in Pharmacy Students

- Solely for students enrolled in the BScPharm at the time the PharmD program is implemented

- Offered all students enrolled in the BScPharm in Fall 2017 the opportunity to complete a PharmD degree

- Meet accreditation standards for the new proposed PharmD degree

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BScPharm Students – Choices for PharmD
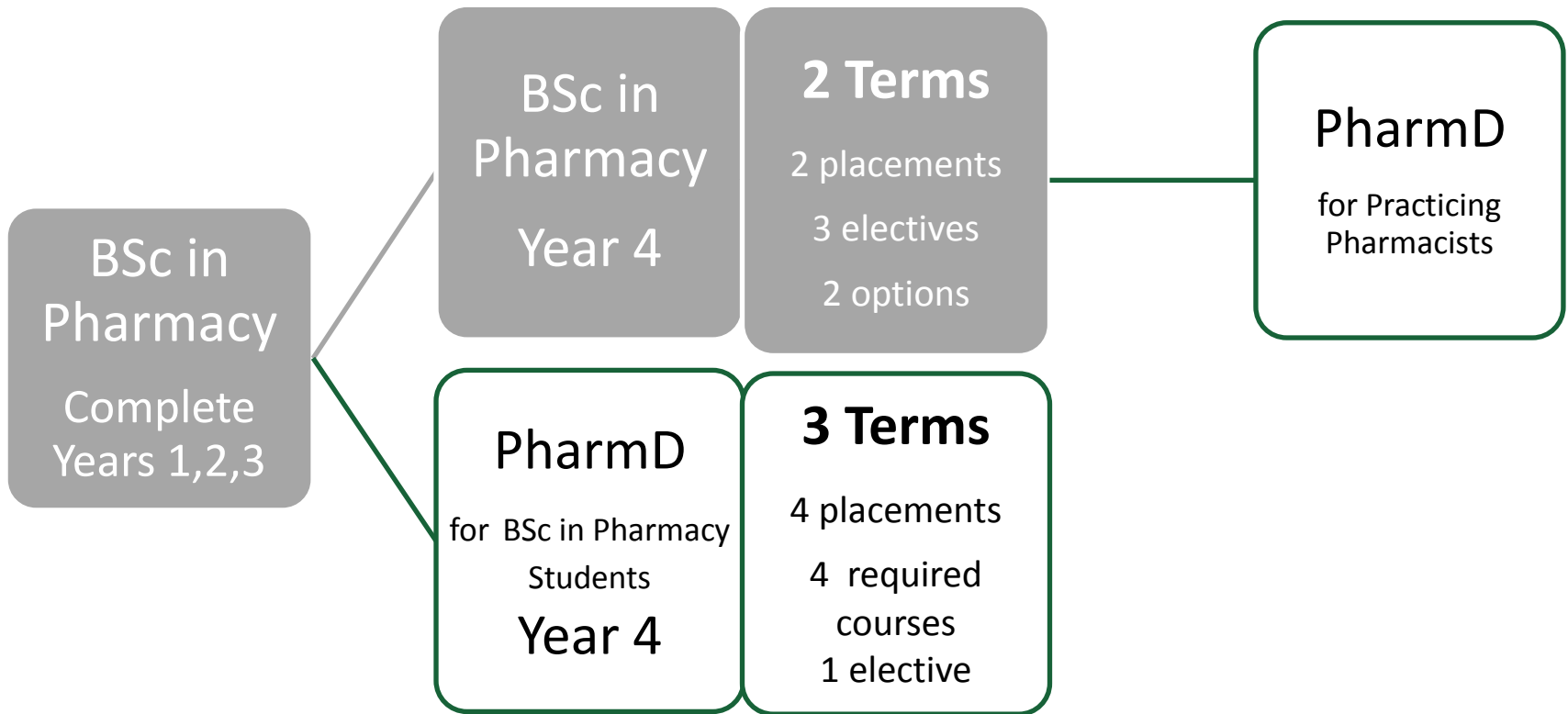
PharmD for BSc in Pharmacy Students - Year Four

Spring/Summer (any combination of ExEd courses)	Fall (one semester of courses)	Winter (any combination of ExEd courses)
PHARM 426 – Community	PHARM 531 - Evidence in Practice	PHARM 536 – Elective
PHARM 428 – Acute Care	PHARM 532 - Patient assessment	PHARM 537 – Selective
PHARM 539 – Integrating Seminar	PHARM 547 - Advanced Therapeutics, Collaboration and Professional Learning	PHARM 538 – Integrating Seminar
	Elective (3 credits)	

Student Pathways in the transition from BScPharm to PharmD Programs

Program	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
BScPharm – Class of 2018	1st year	2nd year	3rd year	4th year			
BScPharm – Class of 2019		1st year	2nd year	3rd year	4th year		
BScPharm – Class of 2020			1st year	2nd year	3rd year	4th year	
PharmD for BSc in Pharmacy Students				4th year	4th year	4th year	
PharmD – Class of 2021				1st year	2nd year	3rd year	4th year

Students admitted in 2014, 2015, and 2016 will be given the choice in the 4th year of their training to complete the BScPharm program or transition to the PharmD program through the Bridging program

Calendar Change

Implementation Type: ☒Normal ☐Early **Implementation Year:** *2017-18*

Type of Change: **X**Program Regulations ☐New Course ☐Course Deletion ☐Course Change ☐Editorial

Current	Proposed
# 144 Programs of Study ## 144.1 BSc in Pharmacy ### 144.1.1 General Information The BSc in Pharmacy program is four years. The courses to be taken in the first three years of the program are specified and are considered basic to the education of pharmacists. The fourth-year allows for some specialization through electives. ### 144.1.2 Program of Courses Note: The following plan applies to students admitted to the BSc in Pharmacy program in 2010–2011 or later **Year 1 (*31.5)** (1) PHARM 300 *1 (2) PHARM 301 *2.5 (3) PHARM 304 *0.5 (4) PHARM 305 *4 (5) PHARM 306 *2.5 (6) PHARM 307 *2.5 (7) PHARM 314 *1 (8) PHARM 321 *2.5 (9) PHARM 322 *2 (10) PHARM 324 *1 (11) PHARM 331 *3 (12) PHARM 334 *1.5 (13) PHARM 341 *2 (14) PHARM 342 *2.5 (15) Option (*3) **Year 2 (*32)** (1) PHARM 311 *1 (2) PHARM 315 *2 (3) PHARM 327 *2 (4) PHARM 330 *3 (5) PHARM 347 *1 (6) PHARM 351 *2 (7) PHARM 357 *2 (8) PHARM 361 *3 (9) PHARM 362 *1 (10) PHARM 367 *4 (11) PHARM 377 *1 (12) PHARM 392 *1.5 (13) PHARM 397 *2 (14) PHARM 427 *1.5 (15) INT D 410 *3	# 144 Programs of Study ## 144.1 BSc in Pharmacy ### 144.1.1 General Information The BSc in Pharmacy program is four years. The courses to be taken in the first three years of the program are specified and are considered basic to the education of pharmacists. The fourth-year allows for some specialization through electives. Effective for Fall 2017, applications to this program will no longer accepted. Interested students should apply to the Doctor of Pharmacy (PharmD). ### 144.1.2 Program of Courses Note: The following plan applies to students admitted to the BSc in Pharmacy program in 2010–2011 or later **Year 1 (*31.5)** (1) PHARM 300 *1 (2) PHARM 301 *2.5 (3) PHARM 304 *0.5 (4) PHARM 305 *4 (5) PHARM 306 *2.5 (6) PHARM 307 *2.5 (7) PHARM 314 *1 (8) PHARM 321 *2.5 (9) PHARM 322 *2 (10) PHARM 324 *1 (11) PHARM 331 *3 (12) PHARM 334 *1.5 (13) PHARM 341 *2 (14) PHARM 342 *2.5 (15) Option (*3) **Year 2 (*32)** (1) PHARM 311 *1 (2) PHARM 315 *2 (3) PHARM 327 *2 (4) PHARM 330 *3 (5) PHARM 347 *1 (6) PHARM 351 *2 (7) PHARM 357 *2 (8) PHARM 361 *3 (9) PHARM 362 *1 (10) PHARM 367 *4 (11) PHARM 377 *1 (12) PHARM 392 *1.5 (13) PHARM 397 *2 (14) PHARM 427 *1.5

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(16) PHARM 487 *2

Year 3 (*32.5)

(1) PHARM 372 (*2)
(2) PHARM 382 (*3)
(3) PHARM 387 (*1.5)
(4) PHARM 407 (*4)
(5) PHARM 417 (*2.5)
(6) PHARM 430 (*3)
(7) PHARM 437 (*1.5)
(8) PHARM 447 (*2)
(9) PHARM 467 (*2)
(10) PHARM 477 (*4)
(11) PHARM 497 (*2)
(12) PHARM 499 (*2)
(13) Option (*3)

Year 4 (*31)

(Students will be off campus in either the first or second term. Coursework will be completed in the opposite term.)
(1) PHARM 425 (*16)
(2) Specialization electives (*9)
(3) Options (*6)

*Specialization Electives
Students wanting to further develop their intended pattern of specialization may want to select courses from the list of pattern-related electives identified by the Faculty of Pharmacy and Pharmaceutical Sciences. At least *3 of the *9 Specialization Electives must be taken as a PHARM course. A list of available Specialization Electives will be provided by the Faculty office. Specialization Electives must be University of Alberta courses and must be taken during year four of the program. Transfer credit is not accepted for Specialization Electives.

*Options
Options normally are selected from courses offered outside the Faculty of Pharmacy and Pharmaceutical Sciences. These courses allow students to pursue areas of personal interest and promote a liberal education.
    Note: Only one junior course from each subject area is permitted.
    Junior courses are those numbered 199 or lower.

NEW

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(15) INT D 410 *3
(16) PHARM 487 *2

Year 3 (*32.5)

(1) PHARM 372 (*2)
(2) PHARM 382 (*3)
(3) PHARM 387 (*1.5)
(4) PHARM 407 (*4)
(5) PHARM 417 (*2.5)
(6) PHARM 430 (*3)
(7) PHARM 437 (*1.5)
(8) PHARM 447 (*2)
(9) PHARM 467 (*2)
(10) PHARM 477 (*4)
(11) PHARM 497 (*2)
(12) PHARM 499 (*2)
(13) Option (*3)

Year 4 (*31)

(Students will be off campus in either the first or second term. Coursework will be completed in the opposite term.)
(1) PHARM 425 (*16)
(2) Specialization electives (*9)
(3) Options (*6)

*Specialization Electives
Students wanting to further develop their intended pattern of specialization may want to select courses from the list of pattern-related electives identified by the Faculty of Pharmacy and Pharmaceutical Sciences. At least *3 of the *9 Specialization Electives must be taken as a PHARM course. A list of available Specialization Electives will be provided by the Faculty office. Specialization Electives must be University of Alberta courses and must be taken during year four of the program. Transfer credit is not accepted for Specialization Electives.

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Options normally are selected from courses offered outside the Faculty of Pharmacy and Pharmaceutical Sciences. These courses allow students to pursue areas of personal interest and promote a liberal education.
    Note: Only one junior course from each subject area is permitted.
    Junior courses are those numbered 199 or lower.

144.2 Doctor of Pharmacy (PharmD)
The Doctor of Pharmacy (PharmD) is a clinical undergraduate degree. There are three routes to the degree (1) direct entry to the program, (2) students currently in the BSc in Pharmacy program, and (3) practicing pharmacists. Students should visit our website at www.pharm.ualberta.ca.

(1) Doctor of Pharmacy (PharmD)
The Doctor of Pharmacy (PharmD) for students entering the program is a four year program consisting of coursework (*101) and practice experience (*40). The courses are required for all students. The elective courses permit exploration of the field of pharmacy. The fourth-year focuses on practice experiences.

Year 1 (*36)
PHARM 201 (*3)
PHARM 202 (*3)
PHARM 203 (*3)
PHARM 204 (*3)
PHARM 205 (*3)
PHARM 212 (*3)
PHARM 213 (*3)
PHARM 220 (*3)
PHARM 223 (*3)

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PHARM 243 (*3)
PHARM 254 (*3)
INT D   410 (*3)

Year 2 (*34)
PHARM 302 (*3)
PHARM 303 (*3)
PHARM 312 (*3)
PHARM 313 (*3)
PHARM 320 (*3)
PHARM 323 (*3)
PHARM 343 (*3)
PHARM 344(*3)
PHARM 345 (*3)
PHARM 346 (*3)
PHARM 354 (*4)

Year 3 (*37)
PHARM 401 (*3)
PHARM 412 (*3)
PHARM 413 (*3)
PHARM 420 (*3)
PHARM 423 (*3)
PHARM 443 (*3)
PHARM 444 (*3)
PHARM 445 (*3)
PHARM 446 (*3)
PHARM 448 (*3)
PHARM 454 (*4)
*Elective   (*3)

Year 4 (*34)
Students will be off campus in two terms: spring/summer, fall, or winter terms.

PHARM 543 (*1)
PHARM 546 (*1)
PHARM 554 (*8)
PHARM 555 (*8)
PHARM 556 (*8)
PHARM 557 (*8)

*Elective
A list of available electives will be provided by the Faculty office. The elective must be taken during year three of the program or with permission of the Faculty. Transfer credit is not accepted for the elective.

(2) Doctor of Pharmacy (PharmD) for BSc in Pharmacy Students
The Doctor of Pharmacy (PharmD) for students currently enrolled in the BSc in Pharmacy program consists of coursework (*14) and practice experience (*32) following the completion of Year 3 in the University of Alberta BSc (Pharmacy) program.

Year 4 (*48)
Year 4 consists of 3 terms over 12 months. Students will be off campus in two terms: spring/summer, fall, or winter. Coursework will be completed on campus in another term.

PHARM 426 (*8)
PHARM 428 (*8)
PHARM 531 (*3)
PHARM 532 (*3)
PHARM 536 (*8)
PHARM 537 (*8)
PHARM 538 (*1)
PHARM 539 (*1)
PHARM 547 (*3)

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*Elective (*3)

*Elective
A list of approved electives will be provided by the Faculty office. The elective must be taken during year three or four of the program or with permission of the Faculty. Transfer credit is not accepted for the elective.

144.2 Doctor of Pharmacy (PharmD)
144.2.1 General Information

The Doctor of Pharmacy (PharmD) degree is a one to two year program combining course work (*18) and practice experience (*36) following the completion of a BSc (Pharmacy) degree. For more information see the Pharmacy website at www.pharm.ualberta.ca.

144.2.2 Program of Courses

(1) PHARM 501 *3
(2) PHARM 502 *3
(3) PHARM 503 *6
(4) PHARM 504 *3
(5) PHARM 505 *3
(6) PHARM 511 *6
(7) PHARM 512 *6
(8) PHARM 513 *6
(9) PHARM 514 *6
(10) PHARM 515 *6

144.3 Graduate Study

Students may undertake graduate study leading to the degree of MPharm, MSc, or PhD. Any students contemplating such work should discuss their program with the Associate Dean (Research and Graduate Studies) of the Faculty of Pharmacy and Pharmaceutical Sciences. They should also familiarize themselves with the admission requirements, regulations, and procedures of the Faculty of Graduate Studies and Research. These may be found in §205, Graduate Programs.

145 Courses

Faculty of Pharmacy and Pharmaceutical Sciences courses can be found in §231, Course Listings, under Pharmacy (PHARM).

(3) Doctor of Pharmacy (PharmD) for Practicing Pharmacists

The Doctor of Pharmacy (PharmD) for Practicing Pharmacists program consists of course work (*18) and practice experience (*36) following the completion of a BSc (Pharmacy) degree.

PHARM 501 *3
PHARM 502 *3
PHARM 503 *6
PHARM 504 *3
PHARM 505 *3
PHARM 511 *6
PHARM 512 *6
PHARM 513 *6
PHARM 514 *6
PHARM 515 *6

144.3 Graduate Study

Students may undertake graduate study leading to the degree of MPharm, MSc, or PhD. Any students contemplating such work should discuss their program with the Associate Dean (Research and Graduate Studies) of the Faculty of Pharmacy and Pharmaceutical Sciences. They should also familiarize themselves with the admission requirements, regulations, and procedures of the Faculty of Graduate Studies and Research. These may be found in §205, Graduate Programs.

145 Courses

Faculty of Pharmacy and Pharmaceutical Sciences courses can be found in §231, Course Listings, under Pharmacy (PHARM).

Submitted by:		
T Schindel, Associate Dean Undergraduate Programs		
Faculty Approval:	**Curriculum Committee** Date: May 27, 2015	**Faculty Council** Date: June 12, 2015

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Calendar Change

Implementation Type: ☒Normal ☐Early **Implementation Year:** *2017-18 (Spring 2017)*

Type of Change: ☐Program Regulations **X**New Course ☐Course Deletion ☐Course Change ☐Editorial

Current	Proposed
# 231.210 Pharmacy, PHARM Faculty of Pharmacy and Pharmaceutical Sciences ## Undergraduate Courses New	**PHARM 201 Principles of Medicinal Chemistry** *3 (*fi6*) (first term, 3-0-0). Introduces students to fundamental principles in medicinal chemistry necessary to understand the relationship between drug structure and drug action. The clinical relevance of medicinal chemistry will be explored through examination of drug structure, properties, classification, cell targets, and selected design/development strategies. (Restricted to Pharmacy students). **PHARM 202 Pharmaceutics 1** *3 (*fi6*) (second term, 3-1-2). Introduces students to the principles of pharmaceutical dosage forms. This course will focus on factors affecting the physical and chemical behavior of drug products, the rationale underlying their formulation, and compounding techniques of pharmaceutical preparations. (Restricted to Pharmacy students). **PHARM 203 Introduction to Pharmacology** *3 (*fi6*) (first term, 3-0-0). Introduces students to fundamental principles of pharmacology that will form the basis for future pharmacotherapy courses. Core concepts of pharmacology, including theoretical aspects of drug-receptor interaction, dose-dependence of drug action, and the effects of drugs on physiological systems will be covered. (Restricted to Pharmacy students). **PHARM 204 Physiology and Anatomy for Pharmacy 1** *3 (*fi6*) (first term, 3-0-0). Provides students with a basic understanding of healthy anatomy and physiology using a systems-based approach relevant to pharmacist's practice. Students will develop critical thinking, self-directed learning, and collaboration skills as they apply their knowledge of anatomy and physiology. (Restricted to Pharmacy students).

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PHARM 205 Physiology and Anatomy for Pharmacy 2
*3 (*fi6*) (second term, 3-0-0). Building on PHARM 204, this course provides students with a basic understanding of healthy anatomy, physiology, and immunology using a systems-based approach relevant to pharmacist's practice. Students will develop critical thinking, self-directed learning, and collaboration skills as they apply their knowledge of anatomy and physiology. (Restricted to Pharmacy students).

PHARM 212 Behavioural, Administrative, Social and Evidence-based Pharmacy 1
*3 (*fi6*) (first term, 3-1-0). This is the first in a series of courses delivered over three years of the program that introduces students to behavioral, administrative, social and evidence-based pharmacy. Topics covered include the pharmacist's role, drug use control, the health care system, and the patient's medication experience. Students will develop skills in answering health and medication related questions using evidence based approach. (Restricted to Pharmacy students).

PHARM 213 Behavioural, Administrative, Social and Evidence-based Pharmacy 2
*3 (*fi6*) (second term, 3-1-0).   Introduces students to the application of jurisprudence and a psychosocial approach to pharmacy. Students will develop skills in personal self-management, leadership, and evaluating experimental and observational study designs. (Restricted to Pharmacy students).

PHARM 220 Patient Care Skills 1
*3 (*fi6*) (first term, 0-0-3). Introduces students to the patient care process and how to apply it, with an emphasis on creating the patient database in a community pharmacy setting. Students will develop fundamental skills required of a pharmacist including communications skills, interprofessional collaboration, medical terminology, pharmaceutical calculations, and drug information. (Restricted to Pharmacy students).

PHARM 223 Patient Care Skills 2
*3 (*fi6*) (second term, 0-0-3).   Students will apply knowledge and further develop skills using the patient care process, focusing on creating the patient database and introducing patient assessment and pharmacotherapy work-up in a community pharmacy setting in order to prepare the student for practice experiences. (Restricted to Pharmacy students).

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PHARM 243 Pharmacotherapy 1
*3 (*fi6*) (second term, 3-1-0). This is the first in a series of courses delivered over three years of the program that provides students with the required knowledge and skills to manage patients' medication therapy. Topics covered include: complementary and alternative medicine, as well as principles of drug therapy for common self-care and pulmonary conditions. Students will develop their critical thinking and self-directed learning skills as they learn to incorporate principles of evidence-based therapeutic decision making into the patient care process framework. (Restricted to Pharmacy students).

PHARM 254 Community Service Learning
 *3 (*fi6*) (two terms, variable).   Students develop a client-centred approach to care, including identification of client's needs, collaboration and professionalism through structured activities. This community service learning experience is offered in conjunction with a structured volunteer program in a residential institution or client care organization. Note: For information about other CSL programs, see the link on the CSL website, www.csl.ualberta.ca (Restricted to Pharmacy students).

PHARM 302 Pharmaceutics 2
*3 (*fi6*) (first term, 3-0-1). Provides students with fundamental knowledge of physicochemical and biological factors that affect the manufacturing, compounding, application, and behaviour of drug products and pharmaceutical dosage forms. This course explores the rationale underlying, as well as the standards governing, the formulation and quality control of pharmaceutical preparations. Emphasis on advanced dosage forms, biologicals as pharmaceuticals, and more complex compounding practices. (Restricted to pharmacy students).

PHARM 303 Essentials of Pharmacokinetics
*3 (*fi6*) (first term, 3-0-0). Provides students with fundamental knowledge of pharmacokinetic concepts and their application in devising appropriate patient-specific dosing regimens. Clinical relevance of pharmacokinetics will be explored through the examination of disease states and drug interactions that affect drug concentrations in the body. (Restricted to Pharmacy students).

PHARM 312 Behavioural, Administrative, Social and Evidence-based Pharmacy 3
*3 (*fi6*) (first term, 3-1-0). Students will apply ethical frameworks, the legal system, and roles of pharmacy organizations in pharmacy practice. Students will develop skills in creating educational plans, appraising randomized controlled trials, and using written patient information. (Restricted to Pharmacy students).

PHARM 313 Behavioural, Administrative, Social and Evidence-based Pharmacy 4
*3 (*fi6*) (second term, 3-1-0). Topics covered include application of pharmacy practice management and patient safety culture to pharmacy practice across settings. Skill development in engaging with patient's specific cultural or communication needs, working in groups, shared decision making, and appraising synthesized resources and observational research. (Restricted to Pharmacy students).

PHARM 320 Patient Care Skills 3
*3 (*fi6*) (first term, 0-0-3). Students will continue to apply knowledge and develop skills required by a pharmacist to provide patient care, using a systematic process to define and achieve the goals of optimizing safe, effective pharmacotherapy. Students will also continue to develop abilities in professionalism, communication, critical thinking, problem-solving, teamwork and self-directed learning. Sessions are designed to facilitate collaborative learning that will be transferable to diverse practice settings, with an introduction to the hospital setting in order to prepare the student for practice experiences. (Restricted to Pharmacy students).

PHARM 323 Patient Care Skills 4
*3 (*fi6*) (second term, 0-0-3). Students will apply knowledge and develop skills needed by a pharmacist to provide patient care, using a systematic process to define and achieve the goals of optimizing safe, effective pharmacotherapy. Students will continue to develop abilities in professionalism, communication, critical thinking, problem-solving, teamwork and self-directed learning. Students will identify, resolve and prevent drug related problems increasing in complexity, and will further develop their patient education, and drug information skills. Sessions are designed to facilitate collaborative learning that will be transferable to diverse practice settings, with more emphasis on the hospital setting. (Restricted to Pharmacy students).

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	PHARM 343 Pharmacotherapy 2 *3 (*fi6*) (first term, 3-1-0). Students will develop a broad understanding of the risk factors and diseases associated with fluid/electrolyte imbalances, as well as major areas of nephrology, urology and endocrinology. They will apply therapeutic and pharmaceutical science knowledge to various patient care scenarios. Students will further develop their critical thinking and self-directed learning skills, along with their breadth and depth of therapeutic knowledge, as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students). **PHARM 344 Pharmacotherapy 3** *3 (*fi6*) (second term, 3-1-0). Students will develop fundamental knowledge of cardiovascular risk factors and diseases and will apply therapeutic and pharmaceutical science knowledge to various patient care scenarios. Students will further develop their critical thinking and self-directed learning skills, along with their breadth and depth of therapeutic knowledge, as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students). **PHARM 345 Pharmacotherapy 4** *3 (*fi6*) (second term, 3-1-0). Students will develop the necessary knowledge related to gastrointestinal, nutritional, dermatologic, and ophthalmic conditions and will apply therapeutic and pharmaceutical science knowledge to various patient care scenarios. Students will further develop their critical thinking and self-directed learning skills, along with their breadth and depth of therapeutic knowledge, as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students). **PHARM 346 Pharmacotherapy 5** *3 (*fi6*) (second term, 3-1-0). Students will develop knowledge related to bacterial infections and will apply therapeutic and pharmaceutical science knowledge to various patient care scenarios. Students will further develop their critical thinking and self-directed learning skills building breadth and depth of therapeutic knowledge as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students).

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	PHARM 354 Introductory Pharmacy Practice Experience 1 - Community Practice *4 (*fi8*) (Spring/Summer, 160 hours). This 4 week structured practical learning experience introduces community pharmacy practice and allows students to integrate knowledge and skills to provide patient care under the supervision of a pharmacist. Students will also develop communication, collaboration and practice management skills, as well as participate in health promotion activities and drug information requests in a community pharmacy setting. Students begin to adopt the professional ethics, behaviours, and attitudes of a pharmacist. Prerequisite: PHARM 254. (Restricted to Pharmacy students). **PHARM 401 Toxicology and Pharmacogenomics** *3 (*fi6*) (second term, 3-0-0). Provides students with fundamental knowledge of toxicologic and pharmacogenomic concepts and their application in patient care. Clinical relevance of toxicology will be explored through the examination of drug toxicity to specific target organs and approaches to managing poisoning and adverse drug reactions. Principles and clinical applications of pharmacogenomics will be explored with relevance to drug metabolism, transport and drug targets. (Restricted to Pharmacy students). **PHARM 412 Behavioural, Administrative, Social and Evidence-based Pharmacy 5.** *3 (*fi6*) (first term, 3-1-0). Students will differentiate levels of care in the health care system and plan to advocate for patient needs. Students will apply laws and jurisprudence to complex practice issues. Skill development in preceptorship, self-directed learning, managing sensitive topics and evaluation of clinical practice guidelines, pharmacoeconomic studies, qualitative research, and diagnostic tests. (Restricted to Pharmacy students). **PHARM 413 Behavioural, Administrative, Social and Evidence-based Pharmacy 6** *3 (*fi6*) (second term, 3-1-0). Students will design, plan, and evaluate a new pharmacy service drawing on expertise in behavioral, administrative, social and evidence-based pharmacy. Students will learn to integrate fundamental topics including: business planning, program evaluation, social theory, and pharmacy practice research. (Restricted to Pharmacy students).

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		PHARM 420 Patient Care Skills 5 *3 (*fi6*) (first term, 0-0-3). Focus will be on advanced practice concepts including prescribing and the application of the patient care process to more complex patient scenarios and chronic diseases. Further development of skills in patient assessment, communication, medication therapy management, and evidence based practice will be undertaken within the context of various practice environments. Peer mentoring and lifelong learning will also be examined. (Restricted to Pharmacy students). **PHARM 423 Patient Care Skills 6** *3 (*fi6*) (second term, 0-0-3). Focus is on advanced practice concepts including patient assessment, communication, medication therapy management, and evidence based practice along with critical thinking and decision-making skills to address complex drug therapy problems. (Restricted to Pharmacy students). **PHARM 443 Pharmacotherapy 6** *3 (*fi6*) (first term, 3-1-0). Students will develop fundamental knowledge in the areas of reproductive and sexual health, as well as musculoskeletal/joint conditions and will apply therapeutic and pharmaceutical science knowledge to various patient care scenarios, with increasing complexity. Students will further develop their critical thinking and self-directed learning skills, along with their breadth and depth of therapeutic knowledge, as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students). **PHARM 444 Pharmacotherapy 7** *3 (*fi6*) (first term, 3-1-0). Students will develop knowledge of various types of pain and oncologic conditions and complications and will apply therapeutic and pharmaceutical science knowledge to various patient care scenarios. Students will further develop their critical thinking and self-directed learning skills, along with their breadth and depth of therapeutic knowledge, as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students).

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PHARM 445 Pharmacotherapy 8
*3 (*fi6*) (first term, 3-1-0). Students will develop knowledge in the areas of neurologic and psychiatric conditions. They will apply therapeutic and pharmaceutical science knowledge to patient care scenarios, with added complexity. Students will further develop their critical thinking and self-directed learning skills, along with their breadth and depth of therapeutic knowledge, as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students).

PHARM 446 Pharmacotherapy 9
*3 (*fi6*) (second term, 3-1-0). This course will familiarize students with geriatrics, pediatrics and other special populations. Students will expand their knowledge and skills regarding these populations and will apply therapeutic knowledge in the context of a bio-psycho-social health model for patient centred care. Students will further develop their critical thinking and advocacy skills related to decision making and care for special populations. (Restricted to Pharmacy students).

PHARM 448 Pharmacotherapy 10
*3 (*fi6*) (second term, 3-1-0). Students will develop foundational knowledge related to select fungal, viral and protozoal infections, as well as in the area of transplant. In addition, this course will provide students with fundamental knowledge and skills (patient assessment) in disease prevention through delivery of immunizations and traveller's health services. Students will further develop their critical thinking and self-directed learning skills, along with their breadth and depth of therapeutic knowledge, as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students).

PHARM 454 Introductory Pharmacy Practice Experience 2 – Acute Care Practice
*4 (*fi8*) (Spring/Summer, 160 hours). This 4 week structured practical learning experience introduces acute care practice and allows students to integrate knowledge and skills to provide patient care in a hospital setting under the supervision of a pharmacist. This course emphasizes pharmacist roles including communication, collaboration, practice management, evidence-based practice, and professional responsibilities in an acute care setting. Prerequisite: PHARM 354. (Restricted to Pharmacy students).

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	PHARM 531 Critical Analysis of Evidence *3 *(fi 6)* (variable, variable). This course focuses on the application of evidence from various sources to address complex issues in pharmacy practice. It will build on students' prior knowledge of study design, evidence-based clinical practice, and critical appraisal. (Restricted to students in the PharmD for BScPharm Students.) **PHARM 532 Patient Assessment** *3 *(fi 6)* (variable, variable). This course focuses on assessment within the pharmacy patient care process. It incorporates lab-based simulations and assignments to provide students with the opportunity to acquire the knowledge and skills essential to contemporary practice. (Restricted to PharmD for BScPharm Students.) **PHARM 536 Advanced Pharmacy Practice Experience – Selective in Patient Care** *8 (*fi16*) (variable, 320 hours). Students will be expected to demonstrate professional competencies in the provision of direct patient care in this 8 week practice experience in any care setting. (Restricted to PharmD for BScPharm Students). **PHARM 537 Advanced Pharmacy Practice Experience – Elective** *8 (*fi16*) (variable, 320 hours). This course provides an opportunity for students to develop a learning plan for this 8 week practice experience in any professional setting. (Restricted to PharmD for BScPharm Students.) **PHARM 538 PharmD Seminars** *1 *(fi 2)* (variable, variable). This seminar course integrates practice experiences with ongoing professional learning. (Restricted to PharmD for BScPharm Students.) Corequisites: One of PHARM 426, 428, 536 or 537. **PHARM 539 PharmD Seminars** *1 *(fi 2)* (variable, variable). This seminar course integrates practice experiences with ongoing professional learning. (Restricted to PharmD for BScPharm Students.) Corequisites: One of PHARM 426, 428, 536 or 537.

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PHARM 543 PharmD Integrating Seminar
*1 (*fi2*) (variable, variable). This capping course facilitates integration of knowledge and skills with pharmacy practice throughout the fourth year of the program. Activities include clinical discussions, presentations, and professional portfolio. Corequisites: One of PHARM 554, 555, 556 or 557. (Restricted to Pharmacy students).

PHARM 546 PharmD Integrating Seminar
*1 (*fi2*) (variable, variable). This capping course facilitates integration of knowledge and skills with pharmacy practice throughout the fourth year of the program. Activities include clinical discussions, presentations, and professional portfolio. Corequisites: One of PHARM 554, 555, 556 or 557. (Restricted to Pharmacy students).

PHARM 547 Advanced Therapeutics, Collaboration and Professional Learning
*3 *(fi 6)* (variable, variable). This course provides an opportunity for students to direct their own learning to strengthen the process of care and increase their depth of knowledge using selected pharmacotherapy topics, group learning and collaboration. Students will focus on using evidence, decision-making, monitoring outcomes of drug therapy, and adjusting therapy. (Restricted to PharmD for BScPharm Students.)

PHARM 554 Advanced Pharmacy Practice Experience 1 – Community Practice
*8 (*fi16*) (variable, 320 hours).   This 8-week structured practical learning experience will allow students to apply and integrate knowledge and skills in a community pharmacy setting. Students will develop practical knowledge necessary for the professional role of pharmacists as care providers, communicators, scholars, educators, advocates, practice managers, leaders and collaborators. Students are expected to step into the role of a pharmacist under the guidance of a pharmacist preceptor. Prerequisite: PHARM 354. (Restricted to Pharmacy students)

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	PHARM 555 Advanced Pharmacy Practice Experience 2 – Acute Care Practice *8 (*fi16*) (variable, 320 hours). This 8-week structured practical learning experience will allow students to apply and integrate knowledge and skills in an acute care setting. Students will develop practical knowledge necessary for the professional role of pharmacists as care providers, communicators, scholars, educators, advocates, practice managers, leaders and collaborators. Students are expected to step into the role of a pharmacist under the guidance of a pharmacist preceptor. Prerequisite: PHARM 454. (Restricted to Pharmacy students). **PHARM 556 Advanced Pharmacy Practice Experience 3 – Selective Patient Care** *8 (*fi16*) (variable, 320 hours). This 8-week structured practical learning experience will allow students to apply and integrate knowledge and skills in any patient care setting . Students will develop practical knowledge necessary for the professional role of pharmacists as care providers, communicators, scholars, educators, advocates, practice managers, leaders and collaborators. Students are expected to step into the role of a pharmacist under the guidance of a pharmacist preceptor. (Restricted to Pharmacy students). **PHARM 557 Advanced Pharmacy Practice Experience 4 – Elective** *8 (*fi16*) (variable, 320 hours). This 8 week structured practical learning experience provides students an opportunity to expand their knowledge and skills in other areas of professional practice including patient care and non-patient care settings. Students will be responsible for development of their own learning plan including outcomes that demonstrate how they have achieved their goals.(Restricted to Pharmacy students).

Submitted by: Christine Hughes, Assistant Dean Curriculum Development		
Faculty Approval:	**Curriculum Committee** **Date:** May 27, 2015	**Faculty Council** **Date:** June 12, 2015

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Calendar Change - Implementation Year: 2017-18

Current University of Alberta Calendar Copy

12.7 Admission and Readmission Deadlines

Pharmacy and Pharmaceutical Sciences

Admission		Readmission		Other Requirements
Application	Documents	Application	Documents	
BSc in Pharmacy				
Fall Term — March 1	June 15	March 1	June 15	Letter of Intent, Interview (see §16.12.1), March 1
Winter, Spring, and Summer Terms: No admission or readmission				
Doctor of Pharmacy (PharmD)				
Fall Term — February 1	February 15 (See Note 1) June 15 (See Note 2)	February 1	February 15 (See Note 1) June 15 (See Note 2)	Curriculum Vitae, Cover Letter, Letters of Reference, Interview (see §16.12.3), February 15
Winter Term — September 1	September 15	September 1	September 15	Curriculum Vitae, Cover Letter, Letters of Reference, Interview (see §16.12.3), September 15
Notes (1) All previously completed course work and course registration of current year. (2) For applicants completing the final year of a prerequisite Bachelor of Pharmacy degree: Final results of current year.				
Spring and Summer Terms: No admission or readmission				
Special/Visiting				
Contact the Faculty office prior to applying.				

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Proposed University of Alberta Calendar Copy

Pharmacy and Pharmaceutical Sciences

Admission		Readmission		Other Requirements
Application	Documents	Application	Documents	
BSc in Pharmacy (1)				
Fall Term	March 1	June 15	March 1	June 15	Letter of Intent, Interview (see §16.12.1), March 1
Winter, Spring, and Summer Terms: No admission or readmission				
Note (1) No admission to the BSc Pharmacy for Fall Term 2017, interested students should apply to the Doctor of Pharmacy.				

Doctor of Pharmacy (PharmD) for admission fall 2017				
Fall Term	March 1	March 15 (See Note 1) June 15 (See Note 2)	March 1	March 15 (See Note 1) June 15 (See Note 2)	Letter of Intent, Pharmacist Consultation Form, Interview (see §16.12.1), March 1
Winter, Spring, and Summer Terms: No admission or readmission				
Notes (1) All previously completed course work and course registration of current year. (2) Final results of current year.				
Doctor of Pharmacy (PharmD) for Practicing Pharmacists				
Fall Term	February 1	February 15 (See Note 1) June 15 (See Note 2)	February 1	February 15 (See Note 1) June 15 (See Note 2)	Curriculum Vitae, Cover Letter, Letters of Reference, Interview (see §16.12.3), February 15
Winter Term	September 1	September 15	September 1	September 15	Curriculum Vitae, Cover Letter, Letters of Reference, Interview (see §16.12.3), September 15
Notes (1) All previously completed course work and course registration of current year. (2) For applicants completing the final year of a prerequisite Bachelor of Pharmacy degree: Final results of current year.				
Spring and Summer Terms: No admission or readmission				
Special/Visiting				
Contact the Faculty office prior to applying.				

Submitted by:
Dion Brocks, Associate Dean Student Affairs

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Faculty Approval:	Faculty Council **Date:** June 12, 2015

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Calendar Change

Implementation Type: ☒Normal ☐Early **Implementation Year:** *2017-18*

Type of Change: **X**Program Regulations ☐New Course ☐Course Deletion ☐Course Change ☐Editorial

Current	Proposed
16.12 Faculty of Pharmacy and Pharmaceutical Sciences 16.12.1 BSc in Pharmacy I. **Minimum Requirements** The minimum requirements for admission to the Pharmacy Program are the satisfactory completion of *30 of University transferable work, including: (1) General Chemistry (*6) (2) Organic Chemistry (*6) (3) English (which may include up to *3 in Writing Studies) (*6) (4) Biology (Cell Biology) (*3) (5) Biochemistry (*3) (6) Mathematics (Calculus) (*3) (7) Statistics (*3) II**. Other Requirements** (1) **Spoken English Requirement**: Applicants must meet a spoken English requirement (see §13.3.2). (2) **Letter of Intent**: Applicants must submit a letter with their application for admission stating their career goals, knowledge of the profession, related experience, and reasons for seeking admission to the Faculty of Pharmacy and Pharmaceutical Sciences. (3) **Interview**: A personal interview is required as part of the admission process. **Note**: Applicants who have sequential high school background courses in Chemistry, English, Mathematics, and Biology will best be prepared to succeed in the Pre-pharmacy program. III. **Selection Process** (1) The Admissions Committee has the responsibility of selecting from among the applicants those individuals who have demonstrated promise to successfully complete the program and gain licensure as pharmacists. Pharmacy has a quota of 130 places and admission is competitive. The number of applicants exceeds the number of available spaces and therefore not all qualified candidates will be offered admission. (2) Applicants are ranked primarily on academic achievement in the prerequisite courses. Other factors considered in ranking include overall academic achievement (emphasizing recent academic performance), a demonstrated ability to perform well in a consecutive Fall/Winter session of full-time study (preferably *30), a letter of intent, and a personal interview [see §16.12.1(II)]. The letter of intent provides an opportunity for the applicant to convey career goals, knowledge of the profession, employment or volunteer experience, and other personal attributes that might be relevant for consideration by the Admissions Committee. Further details regarding the letter of intent, the interview, and U of A courses that can be	**16.12 Faculty of Pharmacy and Pharmaceutical Sciences** 16.12.1 BSc in Pharmacy ==Effective for Fall 2017, applications to this program will no longer accepted. Interested students should apply to the Doctor of Pharmacy.== I. **Minimum Requirements** The minimum requirements for admission to the Pharmacy Program are the satisfactory completion of *30 of University transferable work, including: (1) General Chemistry (*6) (2) Organic Chemistry (*6) (3) English (which may include up to *3 in Writing Studies) (*6) (4) Biology (Cell Biology) (*3) (5) Biochemistry (*3) (6) Mathematics (Calculus) (*3) (7) Statistics (*3) II**. Other Requirements** (1) **Spoken English Requirement**: Applicants must meet a spoken English requirement (see §13.3.2). (2) **Letter of Intent**: Applicants must submit a letter with their application for admission stating their career goals, knowledge of the profession, related experience, and reasons for seeking admission to the Faculty of Pharmacy and Pharmaceutical Sciences. (3) **Interview**: A personal interview is required as part of the admission process. **Note**: Applicants who have sequential high school background courses in Chemistry, English, Mathematics, and Biology will best be prepared to succeed in the Pre-pharmacy program. III. **Selection Process** (1) The Admissions Committee has the responsibility of selecting from among the applicants those individuals who have demonstrated promise to successfully complete the program and gain licensure as pharmacists. Pharmacy has a quota of 130 places and admission is competitive. The number of applicants exceeds the number of available spaces and therefore not all qualified candidates will be offered admission. (2) Applicants are ranked primarily on academic achievement in the prerequisite courses. Other factors considered in ranking include overall academic achievement (emphasizing recent academic performance), a demonstrated ability to perform well in a consecutive Fall/Winter session of full-time study (preferably *30), a letter of intent, and a personal interview [see §13.3.2]. The letter of intent provides an opportunity for the applicant to convey career goals, knowledge of the profession, employment or volunteer experience, and other personal attributes that might be relevant for consideration by the Admissions Committee. Further details regarding the

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used to meet minimum requirements are available on the Faculty of Pharmacy website at www.pharm.ualberta.ca/prospectivestudents.aspx.

16.12.2 Aboriginal Applicants

The Faculty of Pharmacy and Pharmaceutical Sciences may provide one position to an Aboriginal applicant, over the regular quota of 130 students.
Students who are of Aboriginal ancestry within the meaning of the Constitution Act, 1982, Section 35(2) will be considered in this category (§14.3). Proof of Aboriginal status, to be provided as part of the application for admission, is required for consideration of this position [§14.3.2(2)].

Candidates will be subject to admission as outlined in §16.12.1, and to approval by the Faculty of Pharmacy and Pharmaceutical Sciences Admissions Committee. If there are no qualified Aboriginal students in any given year, this position will not be allocated to other applicants.

Aboriginal student applicants should contact the Coordinator, Native Health Care Careers, for individual counselling and career planning. See also §14.3.

New

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letter of intent, the interview, and U of A courses that can be used to meet minimum requirements are available on the Faculty of Pharmacy website at www.pharm.ualberta.ca/prospectivestudents.aspx.

16.12.2 Aboriginal Applicants

The Faculty of Pharmacy and Pharmaceutical Sciences may provide one position to an Aboriginal applicant, over the regular quota of 130 students. Students who are of Aboriginal ancestry within the meaning of the Constitution Act, 1982, Section 35(2) will be considered in this category (§14.3). Proof of Aboriginal status, to be provided as part of the application for admission, is required for consideration of this position [§14.3.2(2)].

Candidates will be subject to admission as outlined in §16.12.1, and to approval by the Faculty of Pharmacy and Pharmaceutical Sciences Admissions Committee. If there are no qualified Aboriginal students in any given year, this position will not be allocated to other applicants.

Aboriginal student applicants should contact the Coordinator, Native Health Care Careers, for individual counselling and career planning. See also §14.3.

16.12.3 Doctor of Pharmacy (PharmD)

The Doctor of Pharmacy (PharmD) program plans admission in fall 2017.

I. Minimum Requirements

The minimum requirements for admission to the Pharmacy Program are the satisfactory completion of *60 of University transferable work, including:
(1) General Chemistry (*6)
(2) Organic Chemistry (*6)
(3) English (which may include up to *3 in Writing Studies) (*6)
(4) Biology (Cell Biology) (*3)
(5) Biochemistry (*3)
(6) Mathematics (Algebra or Calculus) (*3)
(7) Statistics (*3)
(8) Microbiology (*3)
(9) Humanities or Social Sciences (minimum *18) (Examples include: Anthropology, Community Service Learning, Economics, History, Political Science, Psychology, Sociology, English, French, Philosophy, or Drama)
(10) Sciences (up to *9) (Examples include: Biology, Biochemistry, Botany, Chemistry, Pharmacology, Physics, Psychology or Nutrition)

II. Other Requirements

(1) **Spoken English Requirement**: Applicants must meet a spoken English requirement (see §13.3.2).
(2) **Letter of Intent**: Applicants must submit a letter with their application for admission stating their career goals, related experience, and reasons for seeking admission to the Faculty of Pharmacy and Pharmaceutical Sciences.
(3) **Pharmacist Consultation**: Applicants must submit a Pharmacist Consultation Form with their application for admission stating their knowledge of the profession.
(4) **Interview**: A personal interview is required as part of the admission process.
Note: Applicants who have sequential high school background courses in Chemistry, English, Mathematics, and Biology will best be prepared to succeed in the Pre-pharmacy program.

III. Selection Process

(1) The Admissions Committee has the responsibility of selecting from among the applicants those individuals who have demonstrated promise to successfully complete the program and gain licensure as pharmacists.

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Pharmacy has a quota of 130 places and admission is competitive. The number of applicants exceeds the number of available spaces and therefore not all qualified candidates will be offered admission.

(2) Applicants are ranked primarily on academic achievement including that in the prerequisite courses, overall academic achievement (emphasizing recent academic performance), and a demonstrated ability to perform well in consecutive Fall/Winter sessions of full-time study (preferably *30). Other criteria included the structured essay and a personal interview [see §16.12.3(II)]. The Pharmacist Consultation is needed to establish direct contact with and knowledge of the profession. Further details regarding the letter of intent, the interview, and U of A courses that can be used to meet minimum requirements are available on the Faculty of Pharmacy website at www.pharm.ualberta.ca/prospectivestudents.aspx.

16.12.4 Aboriginal Applicants

The Faculty of Pharmacy and Pharmaceutical Sciences may provide one position to an Aboriginal applicant, over the regular quota of 130 students. Students who are of Aboriginal ancestry within the meaning of the Constitution Act, 1982, Section 35(2) will be considered in this category (§14.3). Proof of Aboriginal status, to be provided as part of the application for admission, is required for consideration of this position [§14.3.2(2)].
Candidates will be subject to admission as outlined in §16.12.3, and to approval by the Faculty of Pharmacy and Pharmaceutical Sciences Admissions Committee. If there are no qualified Aboriginal students in any given year, this position will not be allocated to other applicants.
Aboriginal student applicants should contact the Coordinator, Native Health Care Careers, for individual counselling and career planning. See also §14.3

New

16.12.5 Doctor of Pharmacy (PharmD) for BScPharm Students

Students completing Year 3 of the BScPharm program (see §144.1.2) may be eligible for admission to the PharmD for BScPharm Students program. Contact the Faculty for further information.

16.12.3 Doctor of Pharmacy (PharmD)

I. Minimum Requirements
The minimum requirements for admission to the PharmD program are a Bachelor of Pharmacy degree from a recognized institution. Normally, an overall GPA of at least 3.0 or equivalent in a Bachelor of Pharmacy degree is required.

II. Other Requirements
(1) Proof of current licensure or eligibility for licensure as a pharmacist with the Alberta College of Pharmacists (see Note)
(2) Authorization to administer drugs by injection (see Note)
(3) Official transcripts from a Bachelor of Pharmacy program and any other postsecondary education completed
(4) Spoken English Requirement: Applicants must meet a spoken English requirement (see §13.3.2)
(5) Curriculum vitae (CV)
(6) Cover Letter
(7) Letters of reference
(8) Personal interview
    For further details on the above other requirements, please see PharmD on the Faculty of Pharmacy and Pharmaceutical Studies website: www.pharm.ualberta.ca.

16.12.6 Doctor of Pharmacy (PharmD) for Practicing Pharmacists

I. Minimum Requirements
The minimum requirements for admission to the PharmD program are a Bachelor of Pharmacy degree from a recognized institution. Normally, an overall GPA of at least 3.0 or equivalent in a Bachelor of Pharmacy degree is required.

II. Other Requirements
(1) Proof of current licensure or eligibility for licensure as a pharmacist with the Alberta College of Pharmacists (see Note)
(2) Authorization to administer drugs by injection (see Note)
(3) Official transcripts from a Bachelor of Pharmacy program and any other postsecondary education completed
(4) Spoken English Requirement: Applicants must meet a spoken English requirement (see §13.3.2)
(5) Curriculum vitae (CV)
(6) Cover Letter
(7) Letters of reference
(8) Personal interview
    For further details on the above other requirements, please see PharmD

Note: Proof of current licensure as a pharmacist with the Alberta College of Pharmacists and authorization to administer drugs by injection can occur after admission to the program, but must occur prior to the first rotation commencing [see §143.3.3(3)b.].

III. Selection Process

(1) The Admissions Committee has the responsibility of selecting from among the applicants those individuals who have the highest levels of professional and academic achievement, and a demonstrated promise to successfully complete the program. The number of applicants is expected to exceed the number of available spaces and therefore not all qualified candidates will be selected for interview or offered admission.

(2) Applicants are ranked on academic achievement, professional experience, cover letter, letters of reference and a personal interview. Deposit: Upon notification of admission, successful applicants will be required to confirm their admission and intention to register by submitting a nonrefundable tuition deposit within the time specified in the letter of acceptance. The deposit will be credited toward payment of tuition upon completion of registration. (See §13.5.3).

on the Faculty of Pharmacy and Pharmaceutical Studies website: www.pharm.ualberta.ca.

Note: Proof of current licensure as a pharmacist with the Alberta College of Pharmacists and authorization to administer drugs by injection can occur after admission to the program, but must occur prior to the first rotation commencing [see §143.3.3(3)b.].

III. Selection Process

(1) The Admissions Committee has the responsibility of selecting from among the applicants those individuals who have the highest levels of professional and academic achievement, and a demonstrated promise to successfully complete the program. The number of applicants is expected to exceed the number of available spaces and therefore not all qualified candidates will be selected for interview or offered admission.

(2) Applicants are ranked on academic achievement, professional experience, cover letter, letters of reference and a personal interview. Deposit: Upon notification of admission, successful applicants will be required to confirm their admission and intention to register by submitting a nonrefundable tuition deposit within the time specified in the letter of acceptance. The deposit will be credited toward payment of tuition upon completion of registration. (See §13.5.3).

Submitted by:
Dion Brocks, Associate Dean Student Affairs

Faculty Approval:	**Faculty Council** **Date:** June 12, 2015

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Calendar Change

Implementation Type: ☒Normal ☐Early **Implementation Year:** *2017-18*

Type of Change: **X**Program Regulations ☐New Course ☐Course Deletion ☐Course Change ☐Editorial

Current	Proposed
# 143 Faculty Regulations ## 143.1 Admission See §§13 and 14 for general admission requirements to the University. Specific admission information for the Bachelor of Science in Pharmacy is set out in §16.12. ## 143.2 Professional Ethics/Code of Student Behaviour Students in the Pharmacy program are required to adhere to the professional code of ethics of the Alberta College of Pharmacists. Refer to §30.3.3 of the Code of Student Behaviour, and §16.12 for additional information. Amendments to the Code of Student Behaviour occur throughout the year. The official version of the Code of Student Behaviour, as amended from time to time, is housed on the University Governance website at www.governance.ualberta.ca. ## 143.3 Academic Standing 143.3.1 BSc in Pharmacy … 143.3.2 Graduation … New	# 143 Faculty Regulations ## 143.1 Admission See §§13 and 14 for general admission requirements to the University. Specific admission information for the Bachelor of Science in Pharmacy and Doctor of Pharmacy (PharmD) programs is set out in §16.12. ## 143.2 Professional Ethics/Code of Student Behaviour Students in the Pharmacy programs are required to adhere to the professional code of ethics of the Alberta College of Pharmacists. Refer to §30.3.3 of the Code of Student Behaviour, and §16.12 for additional information. Amendments to the Code of Student Behaviour occur throughout the year. The official version of the Code of Student Behaviour, as amended from time to time, is housed on the University Governance website at www.governance.ualberta.ca. ## 143.3 Academic Standing 143.3.1 BSc in Pharmacy … 143.3.2 Graduation … 143.3.3 Doctor of Pharmacy (PharmD) **(1) Grades** a. The means of assessing a student's progress and determining a student's grades may vary from one course to another, according to the nature of the course. Factors other than examination results may be used to a variable extent by instructors in determining grades. Students are informed at the beginning of each course how grades are to be determined. b. Students must satisfactorily complete all components of all courses.

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(2) Reexaminations: See §23.5.5

a. Students are advised that it is not possible to make a ruling regarding remediation or reexamination until all grades for a year are received and recorded.

b. The reexamination mark will replace the original final exam mark. Reexamination results do not alter the student's class standing.

c. Any student who, after reexamination and/or evaluation, fails to meet promotion/graduation requirements, is deemed to have failed the year.

d. A student who does not take a reexamination within the time period prescribed by the Faculty will not be allowed to continue in the program.

e. Reexamination procedure:
i) The Associate Dean (Student Affairs) will specify by course the reexamination required of a failed student for the purposes of meeting promotion/graduation requirements.
ii) All students will take the reexamination as scheduled by June 30.

(3) Promotion and/or Continuation

a. Progression in the program is year by year and not by courses completed. Accordingly, all students in a particular year of the program normally should be registered in the same courses in each term (§144.3.) Students will not normally register in any core (i.e., non-elective) courses from a particular year of the program until they have satisfactorily completed core courses from the previous year of the program. Students accepted into the MBA Combined Degrees program will be permitted to delay entrance into the fourth year by one year with no loss in standing. The duration of the total MBA Combined Degrees program must not exceed six consecutive calendar years from the time of admission to the Pharmacy program.

b. Academic standing is assessed on the basis of
i) the pass or failure of individual courses and
ii) the GPA attained in a given year of the program. In computing the GPA, grades of W and CR/NC, and grades in courses accepted for transfer credit are not included.
    Each student's academic standing will normally be assessed at the end of the regular academic year. Students who are on Academic Warning will be assessed at the end of each term. See §23.6.2(1).

c. A student who is awarded First-Class Standing or Satisfactory Standing, as defined below, will normally qualify for promotion:

First-Class Standing: Typically awarded to an undergraduate student who obtains a GPA of 3.5 or above and passes all courses while enrolled in the minimum full academic course load in that year. Note: First-Class Standing is not awarded in Year 4 given the limited number of graded units taken in that year.

Satisfactory Standing: Awarded to a student who achieves a GPA of 2.1 or above if no course is failed.

d. **Conditional Standing**: Assigned to a student who achieves a GPA of 2.1 or above but has failed one or more courses.
    A student who is assigned Conditional Standing will be placed on Academic Warning and must retake and pass all failed courses. Other courses are to be taken, up to a normal course load, as scheduling permits and as approved by the Faculty.
    Students on Academic Warning as a result of acquiring Conditional Standing will clear their Academic Warning upon passing the repeated courses and will qualify for promotion if they achieve Satisfactory Standing on the basis of all courses taken during the Year of Study. Students who fail a course a second time will be required to withdraw from the program.

e. **Required to Withdraw**: Any student failing to obtain a minimum GPA

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of 2.1 in any academic year is required to withdraw from the program. Such students are not normally readmitted to the program. Students who fail to provide satisfactory criminal record checks in connection with any practicum placement, or who fail to complete their degree requirements within the five calendar years, may be required to withdraw from the program.

f. **Probation**: Students who have been required to withdraw and who have successfully appealed that decision will be placed on Probation and required to repeat the program year.

To clear probation and qualify for promotion, the student must achieve Satisfactory Standing in the probationary year. Students who fail to do so will be required to withdraw. Any student in a probationary year who fails a course in Fall Term will be required to withdraw immediately and subsequent registration will be cancelled.

Only one year of probation is allowed while registered in the Faculty of Pharmacy and Pharmaceutical Sciences.

(4) Appeals and Grievances: Decisions on academic standing are made by the Faculty Council. Appeals may be made to the Academic Appeals Committee. Certain academic standing decisions made by the Faculty Academic Appeals Committee may be appealed to the General Faculties Council Academic Appeals Committee. Enquiries concerning standing in individual courses should be made to the professor in charge of the course. If the issue is still not resolved, the student may report the matter to the Office of the Dean for enquiry. See §23.8 (Appeals and Grievances) for further information.

The Faculty's regulations governing academic appeals and grade appeals may be obtained in the Dean's Office.

(5) Leave of Absence: Unless enrolled in a combined degree program, students must register in the pharmacy program on a continuous basis to ensure a place in the program. The Faculty does, however, recognize that important life events do occur that may prompt a student to request a Leave of Absence. Students who desire a temporary discontinuation of their program must obtain prior approval for a Leave of Absence by submitting a request to the Student Services Office. A Leave of Absence will not be granted automatically and will be considered only for acceptable reasons (e.g. incapacitating illness, severe domestic affliction). Discontinuance without permission requires the student to seek readmission to the program, which is not guaranteed.

Normally, a Leave of Absence is granted only if all the following conditions are met:
a. A minimum of one full term must be completed within the degree program before a Leave of Absence is considered
b. The student has a cumulative GPA of 2.1 in the pharmacy program
c. The reasons for the absence are considered by the Faculty to be acceptable
d. No transferable courses are being completed at another institution during the Leave of Absence period
e. The leave of absence does not by itself extend the duration of the program beyond the normal limit for completion of the program

Note: An approved Leave of Absence will be granted for a maximum 12-month period of time, and will be granted only once in a student's academic career within the Faculty.

143.3.4 Graduation

(1) Time Limit for Completion of Degree:
Normally, all students must complete their degree requirements within five calendar years from the time of their initial admission. This time limit includes all time during which a student is not in attendance, either for personal reasons [see §143.3.3(5)] or as a result of suspension or requirement to withdraw. Students should be aware of the need to provide a criminal record check for placement in the Experiential courses that are required for completion of the degree in pharmacy. Failure to provide a clean check can lead to delays or even the inability to fulfill these course

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requirements. This may lead to an inability to complete the program within the specified five-year period. Any failure or inability to complete the program within five years may be cause for Requirement to Withdraw from the program.

(2) Academic Performance for Graduation
Students must achieve Satisfactory Academic Standing in their final year of the program; present credit (CR or a minimum University of Alberta grade of D or equivalent) in all program requirements; and present a graduation average of at least 2.1. The graduation average is a cumulative measure of a student's grade points obtained while registered in the Faculty in all years and terms, including Spring/Summer. It is the quotient of (a) the total number of grade points earned by a student in courses credited to the degree and (b) the total weight of those courses.

(3) Degree With Distinction
Degrees with Distinction shall be awarded to students who achieve a GPA of 3.5 or higher on all courses taken in the program.

143.3.3 Doctor of Pharmacy (PharmD)

(1) Grades
a. The means of assessing a student's progress and determining a student's grades may vary from one course to another, according to the nature of the course. Factors other than examination results may be used to a variable extent by instructors in determining grades. Students are informed at the beginning of each course how grades are to be determined.
b. Students must satisfactorily complete all components of all courses.

(2) Reexaminations: See §23.5.5

(3) Promotion and/or Continuation

a. Academic standing is assessed on the basis of:
i) Performance in individual courses,
ii) CR in credit/no credit courses,
iii) A minimum letter grade of B- in all courses in which a letter grade is assigned, and
iv) Students must take a minimum of one course in each term unless prior approval is granted by the Director of the PharmD program or the Assistant Dean (Student Affairs).

b. Proof of current licensure as a pharmacist with the Alberta College of Pharmacists and authorization to administer drugs by injection must be provided prior to the first rotation commencing and annually.

c. **Satisfactory Standing**: Students are in satisfactory standing when they have completed each required course with a minimum letter grade of B- or assigned a grade of CR in credit/no credit courses.

d. **Conditional Standing**: Students are placed in this category and placed on Academic Warning when upon a first attempt at a course, the student has not achieved a minimum grade of B- or a grade of CR in credit/non-credit courses. In such cases the student must retake the course involved the next time it is offered. Such students will clear their Academic Warning upon achieving a grade of B- or CR on the second attempt in order to be placed in Satisfactory Standing.

e. **Required to Withdraw**: Students who fail to achieve a minimum grade of B- or a grade of CR in credit/non-credit courses a second time will be required to withdraw from the program. Failure to provide documentation of current licensure and authorization to administer drugs by injection with the Alberta College of Pharmacists will necessitate withdrawal from the program.

143.3.5 Doctor of Pharmacy (PharmD) for Practicing Pharmacists

(1) Grades
a. The means of assessing a student's progress and determining a student's grades may vary from one course to another, according to the nature of the course. Factors other than examination results may be used to a variable extent by instructors in determining grades. Students are informed at the beginning of each course how grades are to be determined.
b. Students must satisfactorily complete all components of all courses.

(2) Reexaminations: See §23.5.5

(3) Promotion and/or Continuation

a. Academic standing is assessed on the basis of:
i) Performance in individual courses,
ii) CR in credit/no credit courses,
iii) A minimum letter grade of B- in all courses in which a letter grade is assigned, and
iv) Students must take a minimum of one course in each term unless prior approval is granted by the Director of the PharmD program or the Associate Dean (Student Affairs).

b. Proof of current licensure as a pharmacist with the Alberta College of Pharmacists and authorization to administer drugs by injection must be provided prior to the first rotation commencing and annually.

c. **Satisfactory Standing**: Students are in satisfactory standing when they have completed each required course with a minimum letter grade of B- or assigned a grade of CR in credit/no credit courses.

d. **Conditional Standing**: Students are placed in this category and placed on Academic Warning when upon a first attempt at a course, the student has not achieved a minimum grade of B- or a grade of CR in credit/non-credit courses. In such cases the student must retake the course involved the next time it is offered. Such students will clear their Academic Warning upon achieving a grade of B- or CR on the second attempt in order to be placed in Satisfactory Standing.

e. **Required to Withdraw**: Students who fail to achieve a minimum grade of B- or a grade of CR in credit/non-credit courses a second time will be required to withdraw from the program. Failure to provide documentation of current licensure and authorization to administer drugs by injection with the Alberta College of Pharmacists will necessitate withdrawal from the program.

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(4) Appeals and Grievances: Decisions on academic standing are made by the Faculty Council. Appeals may be made to the Academic Appeals Committee. Certain academic standing decisions made by the Faculty Academic Appeals Committee may be appealed to the General Faculties Council Academic Appeals Committee. Enquiries concerning standing in individual courses should be made to the professor in charge of the course. If the issue is still not resolved, the student may report the matter to the Office of the Dean for enquiry. See §23.8 (Appeals and Grievances) for further information.

The Faculty's regulations governing academic appeals and grade appeals may be obtained in the Dean's Office.

143.3.4 Graduation

(1) Time Limit for Completion of Degree:
Normally, all students must complete their degree requirements within five years from the time of their initial admission. This time limit includes all time during which a student is not in attendance, either by personal choice or as a result of suspension or requirement to withdraw. This time will not apply to leaves granted by the Faculty to the student for medical or other reasons. Contact the Faculty regarding options for part-time PharmD studies.

(2) Academic Performance for Graduation
Students must attain a grade of B- or CR in all courses in the PharmD program, and must satisfactorily complete all components of all courses.

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(4) Appeals and Grievances: Decisions on academic standing are made by the Faculty Council. Appeals may be made to the Academic Appeals Committee. Certain academic standing decisions made by the Faculty Academic Appeals Committee may be appealed to the General Faculties Council Academic Appeals Committee. Enquiries concerning standing in individual courses should be made to the professor in charge of the course. If the issue is still not resolved, the student may report the matter to the Office of the Dean for enquiry. See §23.8 (Appeals and Grievances) for further information.

The Faculty's regulations governing academic appeals and grade appeals may be obtained in the Dean's Office.

(5) Leave of Absence: Students must register in one course per term. Students who desire a temporary discontinuation of their program must obtain prior approval for a Leave of Absence by submitting a request to the Student Services Office. A Leave of Absence will not be granted automatically.
Note: An approved Leave of Absence will be granted for a maximum 12-month period of time.

143.3.6 Graduation

(1) Time Limit for Completion of Degree:
Normally, all students must complete their degree requirements within five years from the time of their initial admission. This time limit includes all time during which a student is not in attendance, either by personal choice or as a result of suspension or requirement to withdraw. This time will not apply to leaves granted by the Faculty to the student for medical or other reasons. Contact the Faculty regarding options for part-time PharmD studies.

(2) Academic Performance for Graduation
Students must attain a grade of B- or CR in all courses in the PharmD program, and must satisfactorily complete all components of all courses.

Submitted by:

Dion Brocks, Associate Dean Student Affairs

Faculty Approval:	**Faculty Council** **Date:** June 12, 2015

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UNIVERSITY OF ALBERTA

Calendar Change

Implementation Type: ☒Normal ☐Early **Implementation Year:** *2017-18*

Type of Change: **X**Program Regulations ☐New Course ☐Course Deletion ☐Course Change ☐Editorial

Current	Proposed
## 13.1 Programs of Study	## 13.1 Programs of Study
The Faculties of the University offer programs leading to a degree, a diploma, a certificate, or entrance to a further program, as shown below. of study are counted from matriculation unless otherwise noted.	The Faculties of the University offer programs leading to a degree, a diploma, a certificate, or entrance to a further program, as shown below. of study are counted from matriculation unless otherwise noted.
Years of Study	**Years of Study**
…	…
Faculty of Pharmacy and Pharmaceutical Sciences	**Faculty of Pharmacy and Pharmaceutical Sciences**
BSc (Pharmacy) (one preprofessional year plus) 4	BSc (Pharmacy) (one preprofessional year plus) 4
Doctor of Pharmacy (PharmD) (BSc in Pharmacy plus) 1 –2	Doctor of Pharmacy (PharmD) (2 preprofessional years plus) 4
….	Doctor of Pharmacy (PharmD) for Practicing Pharmacists (PharmD) (BSc in Pharmacy plus) 1 –5
	….

Submitted by: Dion Brocks, Associate Dean Student Affairs	
Faculty Approval:	**Faculty Council** **Date:** June 12, 2015

Calendar Change

Implementation Type: ☒Normal ☐Early **Implementation Year:** *2017-18*

Type of Change: **X**Program Regulations ☐New Course ☐Course Deletion ☐Course Change ☐Editorial

Current	Proposed
13.5.3 Program-specific Deposits on Confirmation of Admission Upon notification of admission, successful applicants to certain programs listed below must confirm their admission and intention to register by submitting a nonrefundable program-specific deposit within the time specified in the letter of acceptance. The deposit will be credited toward payment of tuition upon completion of registration. Should a candidate withdraw after accepting a position or not meet specified conditions as stated in the offer of admission, this deposit is forfeited. The following undergraduate programs require a deposit: Doctor of Dental Surgery (DDS) DDS Advanced Placement Diploma in Dental Hygiene Juris Doctor (JD) Doctor of Medicine (MD) Doctor of Pharmacy (PharmD) Bachelor of Science in Medical Laboratory Science Bachelor of Science in Pharmacy Bachelor of Science in Radiation Therapy Applicants should contact specific Faculties for more information about program-specific deposits, including specific amounts. (See §22.1.6)	**13.5.3 Program-specific Deposits on Confirmation of Admission** Upon notification of admission, successful applicants to certain programs listed below must confirm their admission and intention to register by submitting a nonrefundable program-specific deposit within the time specified in the letter of acceptance. The deposit will be credited toward payment of tuition upon completion of registration. Should a candidate withdraw after accepting a position or not meet specified conditions as stated in the offer of admission, this deposit is forfeited. The following undergraduate programs require a deposit: Doctor of Dental Surgery (DDS) DDS Advanced Placement Diploma in Dental Hygiene Juris Doctor (JD) Doctor of Medicine (MD) Doctor of Pharmacy (PharmD) Doctor of Pharmacy (PharmD) for Practicing Pharmacists Bachelor of Science in Medical Laboratory Science Bachelor of Science in Pharmacy Bachelor of Science in Radiation Therapy Applicants should contact specific Faculties for more information about program-specific deposits, including specific amounts. (See §22.1.6)

Submitted by: Dion Brocks, Associate Dean Student Affairs	
Faculty Approval:	**Faculty Council** **Date:** June 12, 2015

FACULTY OF PHARMACY AND PHARMACEUTICAL SCIENCES

3-171 Edmonton Clinic Health Academy
11405 – 87 Ave
Edmonton, Alberta, Canada T6G 1C9
Tel: 780.492.3362
Fax: 780.492.1217
www.pharmacy.ualberta.ca

Calendar Change

Implementation Type: ☒Normal ☐Early **Implementation Year:** *2017-18*

Type of Change: X Program Regulations ☐New Course ☐Course Deletion ☐Course Change ☐Editorial

Current	Proposed
22.2.5 Cost Recovery Programs or Courses 2014-2015 Programs or sections of certain approved courses, as noted below, may be offered in a Cost Recovery format at an increased rate of fee assessment. … Post Professional PharmD Program $425 (per credit)	22.2.5 Cost Recovery Programs or Courses 2014-2015 Programs or sections of certain approved courses, as noted below, may be offered in a Cost Recovery format at an increased rate of fee assessment. … Doctor of Pharmacy (PharmD) for Practicing Pharmacists $425 (per credit)

Submitted by: Rene Breaut, Director PharmD for Practicing Pharmacists	
Faculty Approval:	**Faculty Council** **Date:** June 12, 2015

FACULTY OF PHARMACY AND PHARMACEUTICAL SCIENCES

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Calendar Change

Implementation Type: ☒Normal ☐Early **Implementation Year:** *2017-18*

Type of Change: **X**Program Regulations ☐New Course ☐Course Deletion ☐Course Change ☐Editorial

Current	Proposed

# 143 Faculty Regulations 	
 	
## 143.4 Practicum Intervention Policy 	
 	
The Dean, or Supervisor acting on behalf of the Dean, may immediately deny assignment of a student to, withdraw a student from, or vary terms, conditions or site of a practicum/clinical placement if the Dean or Supervisor has reasonable grounds to believe that this is necessary in order to protect the Public Interest. Refer to §23.8.2 Practicum Intervention Policy for additional information.
 	
### 143.4.1 Practicum Policies and Requirements 	
 	
(1) **Registration with Alberta College of Pharmacists** The *Health Professions Act* requires that pharmacy students be registered as students (restricted practitioners) or if holding an undergraduate degree in pharmacy to be on the College's clinical register in order to practice in the exclusive scope areas of pharmacy to which they are exposed in a clinical placement. All fees and other costs associated with this registration are the responsibility of the student.
 	
(2) **Police Information Check**: Under *The Protection for Persons in Care Act*, all students going to any placement site in Alberta are required to complete a Police Information Check (also known as a Criminal Record Check, Security Clearance Check, or Police Clearance), which must include a Vulnerable Sector Check. The Faculty requires this check prior to the start of the first experiential learning course. The placement site will determine the criteria for acceptance/denial of a placement.
     Police Information Checks will be collected at a designated time by the Experiential Education Office of the Faculty. Typically, one Police Information Check will be required for the duration of the program if continuously enrolled. However, students will be required to confirm annually that their Police Information Check remains clear. If there is a change in status, a new Police Information Check is required. The Police Information Check must be dated no earlier than 90 days prior to the date of collection as determined by the Faculty's Office of Experiential Education.
     Students who have an unclear Police Information Check may be unable to complete required experiential activities and may be required to withdraw from the program. Students who have concerns related to their ability to provide a clear Police Information Check should consult with the Faculty. The ultimate responsibility for ensuring that students meet the requirements of placement sites lies with the students. Other background checks may be required by a placement site, such as a child intervention record check. Students will be advised if any additional background checks are required by a placement site. See §23.8.3 for more information on the general requirements concerning Police Information Checks and the fees associated with them.
 	
(3) **CPR and First Aid Certification**: Students in the Faculty must obtain certification in cardiopulmonary resuscitation (CPR) Level C and a certificate in First Aid (Standard or Emergency First Aid) by the end of March (last
	# 143 Faculty Regulations
	
	## 143.4 Practicum Intervention Policy
	
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www.pharmacy.ualberta.ca

business day) of first year for the BScPharm program or prior to clinical placements for the PharmD program. Please note that CPR Level C with First Aid meets the requirements for providing injections. All fees and other costs for CPR/First Aid certification are the responsibility of the student. Students must maintain valid certification for both CPR Level C and First Aid until they graduate.

(4) **Immunization and Bloodborne Pathogens Policy:**

Immunizations

To ensure, insofar as possible, both student and patient health and safety, the Faculty requires vaccination against, of proof of immunity to, poliomyelitis, diphtheria, tetanus, measles, mumps, rubella, varicella (chicken pox), and hepatitis B. As well, a one-step tuberculin skin test is required in the first year of the program. After completion of their training, students from health science faculties may be required to have tuberculin testing as part of their employment in a health care facility. It is recommended that all testing and vaccination be performed or confirmed by University Health Centre.

Bloodborne Pathogens
The University of Alberta recognizes its duty to minimize the risk of transmission of bloodborne pathogens to/by individuals studying/working at the University. The GFC Bloodborne Pathogens Policy §108.12 limits the possibility of transmission of bloodborne pathogens within the educational setting. The University recognizes, however, that it is not possible to completely eliminate the risk of infection. The Faculty, in accordance with University policies and other current guidelines, has developed the following recommendations concerning bloodborne pathogens. These recommendations will be reviewed and adapted as further information on bloodborne pathogens becomes available.
Any exposure to human blood/body fluids shall be reported immediately according to the University of Alberta protocols. Refer to the Faculty Office for guidance.

Hepatitis B Virus (HBV): Current information indicates that there is a potential risk of transmission of hepatitis B from practitioner to patients in the clinical experience in practice settings. Therefore, applicants will be required to be tested for hepatitis B surface antigen by a personal physician or a physician at University Health Centre. Applicants who test positive for hepatitis B surface antigen will be further tested to help determine infectivity risk. Applicants who test positive for the antibody to hepatitis B surface antigen shall not require hepatitis B surface antigen testing.
For those applicants who test negative to hepatitis B surface antigen and are registered in the Pharmacy program, hepatitis B vaccination will be required. An exception will be made for those who have medical contraindications or for those who already have proof of hepatitis B immunity. After vaccination, students will be tested to determine if they have developed immunity. If they have not, further hepatitis B vaccination and counselling will be determined by the University Health Centre.
At all times students will follow Universal Precautions when there is a potential of exposure to human blood or body fluids.
Immunization requirements must be fulfilled by September 30 in the first year of the program. Students must sign a waiver if they are unable to meet immunization requirements due to medical contraindications.
Human Immunodeficiency Virus (HIV) and hepatitis C Virus (HCV): Current evidence-based research data indicates that transmission of HIV and HCV from a health care worker (HCW) to a patient in a health care setting is extremely rare, although transmission from patients to a HCW is more common. Mandatory testing for HIV and HCV is not recommended at this time.
Note: For updates on changes to medical and immunization requirements refer to the Faculty Office.
N 95 Respirator Fit Testing
Students with potential exposure to airborne infectious agents during clinical placement are required to be fit tested for N 95 respirators, as required by the clinical placement facility. Check with the Faculty office for the procedure to schedule this fit testing.

(5) **Procedures**: The procedures governing practicums and placement are binding and will be provided in a procedures manual.
 	
(6) **Placement:** All required practicums are undertaken at Faculty-approved sites ~~within Alberta~~. The Faculty of Pharmacy and Pharmaceutical Sciences is committed to a regional placement program in which students are normally required to undertake practicums in centres other than Edmonton.
    Access to transportation and accommodation is not considered in making practicum placements. Such access, and the associated costs, are the responsibility of the student.
 	
(7) **Site protocols**: Students on volunteer or practicum placements are required to follow the administrative procedures and regulations (including dress requirements) of the placement site.
 	
(8) Although special services are provided on campus to assist disabled students, these same services may not be available for off-campus placements.
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	(8) Although special services are provided on campus to assist disabled students, these same services may not be available for off-campus placements.

Submitted by:

Ann Thompson, Director Experiential Education

Faculty Approval:	**Faculty Council** **Date:** June 12, 2015

UNIVERSITY OF ALBERTA
FACULTY OF PHARMACY AND
PHARMACEUTICAL SCIENCES

<div align="center">

PharmD Steering Task Force (Steering Committee)

</div>

Purpose

The PharmD Steering Task Force (Steering Committee) is an advisory committee to the Curriculum Committee, the Faculty, and the Dean that will guide development of an entry-level PharmD Degree at the University of Alberta. Entry into the degree program will require two years of defined university level pre-pharmacy course work. The program will consist of four years of classroom and experiential education that includes early, mid- and near the end of program practice experiences. The new curriculum will meet Canadian Council for the Accreditation of Pharmacy Programs (CCAPP) standards for the entry level PharmD degree and will embrace the Association of Faculties of Pharmacy of Canada (AFPC) Educational Outcomes encompassing science and practice of pharmacy integrated throughout the curriculum to addresses practice areas of communication, interprofessional care, practice management, patient care process, health promotion treatment and prevention of disease, and undergraduate research. It will also address unique aspects of the practice environment in Alberta.

Responsibilities

The Steering Committee is responsible to provide overall guidance for the development of:
- Program Proposal
  - Pre-pharmacy requirements
  - Philosophy and goals of the program
  - Educational framework including total credit hours required in each year
  - Core courses in biomedical and pharmaceutical sciences, pharmacotherapy, practice skills, and behavioral, social and administrative pharmacy
  - Elective courses
  - Interprofessional courses
  - Undergraduate research
  - Experiential education
  - Assessment of learning
  - Program evaluation
  - Program policies, such as admission, academic standing. Policies will be vetted through appropriate Faculty committees and/or the Dean
- Program Implementation
  - Identify and consider logistical issues associated with implementation of the proposed curriculum

Decision-making

The Steering Committee acts as an advisory committee that makes recommendations to the Curriculum Committee, the Faculty, and the Dean in regards to the development of an entry-level Doctor of Pharmacy Degree (PharmD) at the University of Alberta.

Working Groups involving faculty members, students and outside stakeholders will be created to develop the new PharmD program. The proposal development will be guided by the Steering Committee followed by Curriculum Committee and Faculty Council approval prior to submission through University governance.

Composition

Membership	Name (as of June 2015)
Assistant Dean (Curriculum Development) – Chair	C Hughes
Associate Dean (Undergraduate Programs), Curriculum Committee Chair	T Schindel
Pharmacy Practice Division Chair	N Yuksel
Pharmaceutical Sciences Division Chair	J Seubert
Pharmaceutical Sciences Representative	S Marsh R Lobenberg
Pharmacy Practice Representative	T Charrois
Director, Experiential Education	A Thompson
Director, Program Evaluation/Assessment	K Cor
Alberta Pharmacy Students' Association Representatives (2)	K Hamelin D Burton
Alberta College of Pharmacists Representative	B Willsey
Alberta Pharmacists Association Representative	M Tachuk
Alberta Health Services/Covenant Health Representative	S Ginther

Meeting

The Steering Committee will meet approximately 3-4 times per year. The meetings will be called by the Chair.

Quorum

In the case of the Steering Committee, attendance by at least half of the members will be considered quorum.

Minutes

A summary of the Steering Committee meetings will be recorded.

Reporting

The Steering Committee will provide regular updates to the Curriculum Committee. The program proposal will be sent to Curriculum Committee for review and approval.

Chair's Responsibilities

Ensure the Steering Committee runs effectively and follows procedural rules of order.
Call meetings of the Steering Committee.

The Canadian Council for Accreditation of Pharmacy Programs
Le Conseil canadien de l'agrément des programmes de pharmacie

May 26, 2015

James P. Kehrer, PhD
Professor and Dean
Faculty of Pharmacy and Pharmaceutical Sciences
2-35F Medical Sciences
University of Alberta
Edmonton, AB T6G 2H7

Dear Dean Kehrer,

RE: Doctor of Pharmacy (PharmD) Program Proposal

As the Executive Director of the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) in Canada, it is my pleasure to write this letter in support of the Doctor of Pharmacy program proposed at the University of Alberta. CCAPP assesses the quality of pharmacy professional degree programs in Canadian universities and promotes continued improvement in such programs. Your plans to implement a Doctor of Pharmacy program in 2017 have my enthusiastic support. My support is based on the excellent leadership of the pharmacy program at the University of Alberta and substantial progress with the Bachelor of Pharmacy program following our last accreditation visit in the fall of 2010.

The curricular framework proposed for your PharmD program is well-aligned with the CCAPP standards for the first professional degree in pharmacy programs. A number of noteworthy aspects of the proposed curricular framework fully address accreditation requirements for the Doctor of Pharmacy degree including: (1) two years pre-pharmacy, (2) a minimum of eight weeks of early practice experiences consisting of four weeks following Year 1 and four weeks following Year 2, (3) 32 weeks of sustained practice experiences in Year 4 of the program, and (4) interprofessional education introduced in Year 1 and integrated throughout the four-year program.

Your proposal acknowledges three main audiences in the implementation of the PharmD program. First, the proposed new curricular framework addresses students entering the program. Your current Doctor of Pharmacy program, introduced in 2013, will be offered as a part-time, distance learning program beginning in 2016. This program will address the audience of practicing pharmacists in Alberta who wish to pursue the PharmD degree. The third audience addressed in your plan is the current students enrolled in the Bachelor of Science program at the time of implementation of the PharmD degree. Your commitment to offering a PharmD bridging program for current students is commendable.

In conclusion, I fully support the Faculty of Pharmacy and Pharmaceutical Sciences' proposal for the PharmD degree program. On behalf of CCAPP, we look forward to supporting the continued growth, quality and excellence of the pharmacy program at the University of Alberta.

Sincerely,

K. Wayne Hindmarsh, Ph.D., FCSFS, FCAHS, FFIP
Executive Director

June 1st, 2015

James P. Kehrer, Ph.D
Dean and Professor, Faculty of Pharmacy and Pharmaceutical Sciences
Medical Sciences Building 2-35F
8613 114th Street, University of Alberta
Edmonton, AB   T6G 2H1

Dear Dean Kehrer:

On behalf of the undergraduate pharmacy students united under the Alberta Pharmacy Students' Association, please accept our support for the proposed entry-level PharmD program to be introduced at the University of Alberta in 2017. Our peers are very enthusiastic about the opportunities that will be available for prospective students, for current students, as well as, for our recently graduated peers.

Students commend each and every single faculty member involved in the development and enhancement of this new curriculum. We are grateful for the opportunity this past year to have students and APSA Council members invited to participate on the PharmD Curriculum Steering Committees in order to present the perspectives of the student body and to provide our own meaningful insight in improving the curriculum. As with the creation of the post-professional PharmD degree program in 2013, students continue to look forward to educational opportunities to develop their clinical judgement, their confidence in the delivery of patient care, as well as, their sense of accountability.
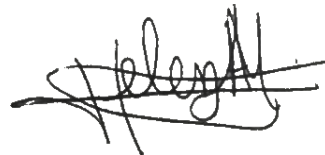
As more than half the pharmacy programs across the country will be offering the entry-level PharmD degree, we understand the importance of this change to the curriculum to ensure that our education is more than comparable to our peers across Canada. Common priorities that we share with the Faculty include our focus on increased experiential education opportunities, especially in institutional settings, and the accommodating options available for students that graduate just shy of the transition to the entry-level program. We also understand and appreciate the effort that has been invested in engaging stakeholders across pharmacy practice in order to provide experiential education rotations for the entry-level, full-time and part-time PharmD programs as we transition into the new program.

APSA would like to thank you for opportunity to be involved in the development of the entry-level PharmD program, and with the feedback of our peers, we would like to confirm our support for the introduction of the new program for the Fall of 2017. We look forward to future Town Hall meetings to discuss the continued progress and the program's implementation, as well as to reaffirm our support.

Sincerely,

Humirah Sultani, APSA President
Alberta Pharmacy Students' Association
780 885 0817 | Humirah@ualberta.ca

Helen Marin, APSA President-Elect
Alberta Pharmacy Students' Association
780 906 4181 | Hmarin@ualberta.ca

August 26, 2015

Dr. James Kehrer
Dean, Faculty of Pharmacy and Pharmaceutical Sciences
MS 2-35F
University of Alberta
8613 – 114th Street
Edmonton, AB T6G 2H1

Dear Dr. Kehrer,

Please accept this letter on behalf of NorQuest College as support to the University of Alberta's proposed Doctor of Pharmacy. We, at NorQuest College, are particularly proud of the collaborations we have been able to forge between the U of A Faculty of Pharmacy and our Pharmacy Technician program. We have a history of collaborating to improve the knowledge and skills of both Pharmacists and Pharmacy Technicians alike. The roles of both professions are evolving and our collective commitment to exploring new and innovative collaborations will keep both of our programs relevant and leading edge in the professions.

We wish you all the best with your proposal and will wait with keen interest for the outcome.

Sincerely,

Craig Hart
Acting Dean
Faculty of Health and Community Studies
T 780.644.6259 F 780.644.6049
craig.hart@norquest.ca

1100-8215 112 Street NW
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Web: pharmacists.ab.ca

Healthy Albertans through excellence in pharmacy practice

June 29, 2015

Dr. James Kehrer
Dean
Faculty of Pharmacy & Pharmaceutical Sciences
University of Alberta   sent by e-mail
2-35F, Medical Sciences
8613-114 Street
Edmonton, Alberta
T6G 2H7

Dear Dr. Kehrer,

Re: Introduction of Pharm D Program

The Alberta College of Pharmacists has, and continues, to support the Faculty's development of a new curriculum for pharmacy students that will provide them an enhanced practical training experience; building their competence and confidence as clinicians.

It is appropriate that our students receive a Pharm D designation upon completing this curriculum; as this is consistent with the direction being taken by other faculties of pharmacy across Canada, over 50% of which will implement their programs prior to the end of 2015.

We look forward to implementation of the University of Alberta's new program in the fall of 2017. Equally, we look forward to the availability of program courses to current registrants interested in pursuing a Pharm D on a part time basis. To that end, we also look forward to exploring the possibility of courses being offered to registrants, who wish to advance their learning and improve their skills to make themselves better clinicians.

We expect that all Canadian faculties of pharmacy will adopt a Pharm D curriculum. As this becomes the norm, our college will review and update provincial legislation so as to recognize this as the minimal educational requirement for new pharmacy candidates applying for registration with our college.

Sincerely,

Brad Willsey BSc. Pharm, MBA
President

cc: Greg Eberhart, Registrar

May 21, 2015

Dr. James P. Kehrer
Dean
Faculty of Pharmacy and Pharmaceutical Sciences
MS 2-35F
University of Alberta, 8613 144 Street
Edmonton, AB, T6E 1X2

Dear Dr. Kehrer:

On behalf of the Board of the Alberta Pharmacists' Association (RxA), I am pleased to provide this letter of support for the entry level Doctor of Pharmacy degree that the Faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta intends to implement in the fall of 2017.

In providing its support, the Board recognizes that a Doctor of Pharmacy degree is the new standard in pharmacy education with 50% of Canadian schools having implemented it by the fall of 2015 as a first professional degree in pharmacy. The Board believes that the practice of pharmacy is evolving such that pharmacists are forging new roles in patient care by accepting greater responsibility and patients are accessing their pharmacists to meet more of their health and wellness needs. An entry level Doctor of Pharmacy degree will support this evolution by ensuring that new pharmacist graduates have been exposed to hands on practice through greater experiential learning. Further experiential learning will ensure that pharmacist graduates have the necessary knowledge and experience that will have allowed them to sharpen their critical thinking, clinical decision making and interprofessional skill sets.

The Board extends to you our best wishes for the future and looks forward to working with the Faculty as it progresses with the entry level Doctor of Pharmacy degree.

Sincerely,

Todd Prochnau
President

cc: Margaret Wing

June 1, 2015

James P. Kehrer, Ph.D.
Professor and Dean
Faculty of Pharmacy & Pharmaceutical Sciences
MS 2-35F
University of Alberta
8613 – 114th Street
Edmonton, AB T6G 2H1

Dear Dean Kehrer,

On behalf of the Canadian Society of Hospital Pharmacists (CSHP), I wish to express my support for excellent education programs that prepare graduates for entry to practice in order to best meet the healthcare needs of Canadians.

While CSHP does not have the expertise to evaluate the merits of the proposed Doctor of Pharmacy program at the University of Alberta, it welcomes the enhancements to hospital experiential education commonly found in the PharmD first professional degree. Moreover, CSHP views innovative approaches to strengthening the skills, knowledge and attitudes of pharmacists through enhanced pharmacy educational programs as beneficial for both the care of Canadians and hospital pharmacy practice.

Hospital pharmacists have traditionally contributed significantly to the experiential education of student pharmacists and will be engaged even more given the additional requirements of the PharmD program. Therefore CSHP values the collaboration between the Faculty of Pharmacy and Pharmaceutical Sciences of University of Alberta, practice partners and healthcare institutions in planning the new program.

CSHP is the national voluntary organization of pharmacists committed to patient care through the advancement of safe, effective medication use care in hospitals and other collaborative healthcare settings. As a national voluntary pharmacy organization representing more than half of the hospital pharmacists in Canada (outside of Québec), CSHP has a vested interest in the education of future pharmacists.

As delineated in its paper, *Education: Statement on Collaborative Development, Delivery, and Evaluation of Pharmacy Curricula* (http://www.cshp.ca/productsServices/officialPublications/type_e.asp), CSHP encourages the development and delivery of pharmacy educational curricula designed to prepare pharmacy practitioners to meet the medication-related needs of society.

Sincerely,

Bruce Millin
President

cc   Tania Mysak, CSHP Alberta Branch Delegate

30 impasse Concourse Gate, Unit/unité 3, Ottawa, ON K2E 7V7
Tel./Tél.: 613-736-9733 | Fax/Télec.: 613-736-5660
www.cshp.ca

recognition
reconnaissance best practices
advocacy meilleures pratiques
networking valorisation research recherche
réseautage education formation
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May 8, 2015

James P. Kehrer, Ph.D, Dean
Faculty of Pharmacy and Pharmaceutical Science
University of Alberta
2-53F Medical Sciences
Edmonton, AB   T6G 2H7

Dear Dr. Kehrer,

Re: Letter of Support for a new PharmD program and the University of Alberta

Please accept this letter as support from Alberta Health Services (AHS) for the implementation of a new PharmD program through the Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

AHS is pleased to see this vital educational opportunity being offered through the three streams; students entering the program, a bridging program for BSc program students and a part-time one for practicing pharmacists.

This program will provide AHS and Albertans with pharmacists at the leading edge of pharmaceutical services for the provision of high quality care and service to our patients well into the future.

I would be pleased to receive periodic updates on the progress of this initiative.

Sincerely,

Verna Yiu, MD FRCPC
Vice President Quality & Chief Medical Officer

Quality & Medical Affairs
Suite 1400, 10030 107 Street North Tower, Edmonton AB T5J 3E4
www.albertahealthservices.ca

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May 15, 2015

Dr. James Kehrer
Dean, Faculty of Pharmacy and Pharmaceutical Sciences
University of Alberta
2-35F, Medical Sciences Building
Edmonton, AB T6G 2H1

Dear Dr. Kehrer,

Re: Support for Faculty of Pharmacy Proposed Pharm D Program
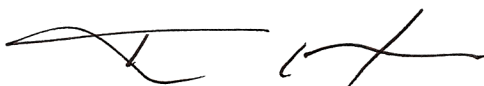
AHS Pharmacy Services is providing this letter in support of the Faculty of Pharmacy and Pharmaceutical Sciences' proposed Doctor of Pharmacy (Pharm D) entry-to-practice degree.

Presently, significant additional training is required before graduates of the Bachelor of Science in Pharmacy degree are able to establish a clinical practice in a hospital environment. Such additional training may be formally structured, as with an accredited 1-year Pharmacy Residency Program or may, at the least, involve many months of orientation and individualized mentoring. The rapidly evolving healthcare environment and the contemporary scope of pharmacist practice is further driving a public need for pharmacists with advanced education and preparation. The proposed program seeks to address these needs, particularly by enhancing experiential training and further developing critical thinking skills.

It is encouraging that academic pharmacist training is adapting not only to meet current demands, but to strongly position the profession in the future. Provincial Pharmacy Services is making preparations to meet the experiential learning needs of the proposed Pharm D program and will be an active partner in the practical training of these future pharmacists.

I wish the University of Alberta every success in this initiative. The Faculty of Pharmacy and Pharmaceutical Sciences continues to demonstrate academic leadership and excellence that is recognized across Canada.

With personal best wishes,

Karen Horon
Senior Operating Officer
Pharmacy Services
Alberta Health Services

Cc: Dr. Verna Yiu, Vice President Quality & Chief Medical Officer, AHS
        Dr. James Silvius, Medical Director, Pharmacy Services, AHS
        Mauro Chies, Chief Program Officer, Clinical Support Services, AHS

Covenant Health

May 7, 2015

James P. Kehrer, Ph.D.
Professor and Dean
Faculty of Pharmacy & Pharmaceutical Sciences
MS 2-35F
University of Alberta,
8613 - 114th St.
Edmonton, AB T6G 2H1

Dr. Kehrer:

I am writing to express my support for the development of an entry level Doctor of Pharmacy (PharmD) degree at the University of Alberta. I am aware that other universities in Canada have already moved to an entry level PharmD degree and that the remaining faculties of pharmacy plan to do so before 2020. It is important that the University of Alberta also move to the entry level PharmD so that your graduates are receiving comparable degrees to other faculties in Canada.

In addition, as complexities of medication regimens continue to increase and evolve, an expanded curriculum will provide greater opportunity for the development of skills related to critical thinking, patient care, and collaborative practice. Pharmacists will graduate with increased confidence in these areas and be better prepared to meet the challenge of managing the pharmaceutical treatment for patients with increasingly complex needs.

More than ever, incoming students are interested in pursuing the PharmD program. The University of Alberta transitioning to a curriculum that provides this degree, with little to no increase in time enrolled as a student, will have a positive effect on pharmacists and the profession in Alberta.

Please feel free to contact me at 780-735-2066 if you wish to discuss this matter further.

Sincerely,

Gordon Stewart, Bsc.Pharm., PharmD,
Corporate Director, Integrated Clinical Services
Covenant Health

May 28th 2015

James P. Kehrer, Ph.D.
Dean, Faculty of Pharmacy and Pharmaceutical Sciences
University of Alberta

Dear Dr. Kehrer:

On behalf of Rexall Pharmacies I am writing this letter in support of the proposed changes to the pharmacy curriculum that will lead to the awarding of the Pharm D for all students.

Rexall/Rexall Pharma Plus is a leading Canadian community pharmacy organization with a dynamic history of innovation and growth. We employ over 8600 people at more than 460 locations across Canada including over 80 pharmacies in Alberta alone. As the landscape of healthcare and pharmacy practice continues to evolve we continue our history of innovation to be able to meet the health needs of all Canadians. We fully support our pharmacists to work to their full scope of practice to provide patients with the best possible health outcomes.

We are confident in the proposed changes to the program, including an increase in experiential knowledge, hands on practice, interprofessional and collaborative practice and emphasis on foundational science including a change to a two year pre-pharmacy program. We believe these changes will allow students to develop into critical thinking and confident decision making professionals that are needed in today's delivery of healthcare.

As one of the largest employers of pharmacists in Alberta, I would like to again reiterate my support for the proposed changes to the pharmacy curriculum which will allow pharmacists to enter the profession with confidence to provide direct impact to patient health. I look forward to working with the students and future colleagues.

Sincerely,

Ali Damani BScPh RPh
Regional Pharmacy Director
Rexall Pharmacies

Karen Sullivan
Director, Pharmacy Professional Affairs

2305 – 29 Street N.E.
Calgary, AB T1Y 0A4
403-410-4805 office
403-461-6711 cell
403-410-4801 fax

May 27, 2015

James P. Kehrer, Ph.D.
Professor and Dean
Faculty of Pharmacy & Pharmaceutical Sciences
MS 2-35F
University of Alberta, 8613 - 114th St.
Edmonton, AB T6G 2H1

Dear Jim,

On behalf of Loblaw-Shoppers Drug Mart, I am pleased to provide this letter of support for the Faculty of Pharmacy and Pharmaceutical Sciences proposal to transition the training for pharmacists to an entry-level Doctor of Pharmacy (PharmD) program for all students who enter the pharmacy program starting in 2017 as outlined through the merging of the existing approved curricula of the post-professional PharmD and the BScPharm programs with appropriate modifications. We are also supportive of the proposed adapting of the post-professional program that will provide practicing pharmacists with the opportunity to obtain the PharmD designation.

Best regards,

Karen Sullivan, BScPharm, MHSA, PharmD
Director, Pharmacy Professional Affairs, Western Canada

Cc: Jeannette Wang, SVP Pharmacy Services and Professional Affairs, Shoppers Drug Mart
        Jeff Leger, SVP, Pharmacy, Loblaw

Appendix G - Experiential Education Stakeholder Engagement

Alberta Health Services/Faculty of Pharmacy and Pharmaceutical Sciences Experiential Education Committee
Members: Tania Mysak (Director of Practice), Michelle MacDonald (CPL:Faculty Liaison South), Margaret Gray (CPL Manager, North), Cindy McMinnis (Acting CPL Manager, South), Deon Druteika (CPL:Faculty Liaison North), Ad hoc members: Wilson Cheng (Manager, UAH), Stacey Ginther (CPL and Member of New Curriculum Development Steering Committee), Elizabeth Mathews (clinical pharmacist)

The AHS-Faculty of Pharmacy Experiential Education Working Group has a mandate to provide general oversight and guidance to collaborative work between AHS Pharmacy Services and the Faculty of Pharmacy on the experiential education placements within AHS Pharmacy sites. The Working Group provides support and direction to the Clinical Practice Leader-Faculty Liaison South, who, as a joint position between the Faculty and AHS, has the accountability to work with the sites to achieve the goals determined by the committee.

Meeting dates:
1. March 25, 2014
2. June 3, 2014
3. September 9, 2014
4. October 14, 2014
5. November 10, 2014
6. December 9, 2014
7. January 13, 2015
8. March 10, 2015
9. May 12, 2015
10. June 9, 2015

Pharmacy Experiential Programs of Canada (PEP-C)
Meeting dates for National Project:
1. December 5, 2014
2. January 13, 2015 (mid-year teleconference)
3. February 2, 2015
4. April 9, 2015
5. June 3, 2015

Association of Faculties of Pharmacy of Canada (AFPC)
Steering Committee dates for National Project:
1. October 9, 2014
2. December 11, 2014
3. February 6, 2015
4. April 16, 2015
5. June 9, 2015

Appendix H - Faculty of Pharmacy and Pharmaceutical Sciences Consultations

2012

June 6:   Pre-Pharmacy Delphi technique – First round consultations
June 18: Steering Committee Meeting – First meeting, Terms of Reference
June 19: Pre-Pharmacy Delphi technique – Second round consultations
July 23: Pre-Pharmacy Delphi technique – Third round consultations
Sept 6:   Steering Committee Meeting – Terms of Reference and Timelines
Oct 24: Steering Committee Meeting – Consultation with University of Montreal, Pierre Moreau (Dean) with Curriculum Committee
Oct 25: Faculty Council – Approved Pre-Pharmacy Working Group proposal

2013

Jan 21: Steering Committee Meeting – Curriculum Framework elements
Mar 18: Steering Committee Meeting –Working Group for Experiential Education
May: Faculty Council – Set direction to focus on Post-Professional PharmD program in 2013
July 30: Curriculum Committee – Approval pathway, curriculum framework elements

2014

Jan 9:   Steering Committee Meeting – Working Group for Program Goals and Outcomes
Jan 14: Faculty Council – Approve target implementation date of September 2017
Jan 20: Curriculum Committee – Curriculum Development Process
Mar 25: Steering Committee Meeting – Program Goals and Outcomes, Consultation
May 26: Steering Committee Meeting – Curriculum Design Elements
Apr 4:   Dean's Advisory Committee – PharmD proposal, ways to partner with practice community
Aug 21: Steering Committee Meeting – Working Groups for Courses
Sept 12: Faculty Council - Approval of Pharm D Program Framework: Design Elements, Program Goals and Outcomes
Sept 22: Steering Committee Meeting - Working Groups established
Oct: Working Groups – begin development of curriculum framework (initiate and continue work through April 2015)
Nov 24: Working Groups Chair Meeting
Dec 5:   Working Groups Complete Course listings and brief descriptions
Dec 15: Faculty Meeting – 1st round of consultation

2015

Jan 12: Steering Committee Meeting – Consultations, course outlined development
Feb 10: Faculty Development Workshop: Writing course objectives
Feb 24: Working Groups Chair meeting
Feb 27: Joint Division meeting – 2nd round of consultation
Mar 11: Director of Post-Professional PharmD – PharmD for BSc in Pharmacy students
Mar 17: Associate Dean Student Affairs – Admissions, academic regulations
Mar 17: Pharmaceutical Sciences Chair – Review process and content for Pharmaceutical Sciences
Apr 1:   Working Groups complete draft of course outlines
Apr 7:   Communications Associate – Communication planning
Apr 10: Division Chairs – Teaching Assignments, staffing projections
Apr 13: Working Group Chairs meeting
Apr 16: Faculty Meeting – 3rd round of consultation

Apr 27:   Steering Committee Meeting – Consultations, review courses/curriculum framework
Apr 29:   Curriculum Committee – Approval of PharmD Curriculum Framework review process
Apr 30:   Working Groups – present courses/curriculum framework
May 6:   Administrative Staff – Curriculum Framework, Scheduling
May 11:   Working Group Chairs meeting
May 14:   Faculty Meeting – 4th round of consultation
May 25:   Pharmacy Executive Committee – Calendar Changes, policy review
May 27:   Curriculum Committee - Approval
May 28:   Administrative Staff – Admissions process
June 12: Faculty Council – Approval
June 30: Faculty review of PharmD Proposal (June 30-July 21)

Appendix I - Consultations with External Stakeholders

2012

Jan 23: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

May 22: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

June 6: Pre-Pharmacy Delphi technique – First round consultations

June 18: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta

June 19: Pre-Pharmacy Delphi technique – Second round consultations

July 23: Pre-Pharmacy Delphi technique – Third round consultations

Sept 6: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta

Sept 17: Lalitha Raman-Wilms, University of Toronto, Peter Loewen, University of British Columbia – pre-pharmacy requirements

Oct 15: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

Oct 24: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta; Consultation with University of Montreal, Pierre Moreau (Dean) with Curriculum Committee

Oct 25: Faculty Council – Alberta College of Pharmacists

2013

Jan 21: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta

Jan 28: Yvonne Shevchuk, University of Saskatchewan – structure of Steering Committees, Working Groups

Feb 27: Canadian Network of PharmD Program Leaders – Curriculum Change Status

Mar 7: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

Mar18: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta

May 1: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

July 30: Curriculum Committee – Alberta College of Pharmacists

Sept 20: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

Sept: National Association of Regulatory Authorities (NAPRA) – Review Competencies for Pharmacists and Pharmacy Technicians

2014

Jan 9: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta

Jan 20: Curriculum Committee – Alberta College of Pharmacists

Mar 25: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta

May 2: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

May 26: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta

Apr 4: Dean's Advisory Committee – Practice community, pharmacy owners, community pharmacy, Primary Care, Chain drug stores

June 24: Pharmacy Practice Stakeholders (Pharmacy Experiential Advisory Committee) – review program goals and outcomes

Aug 21: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta

Aug 26: Karen Horon, Alberta Health Services and Gordon Stewart, Covenant Health – membership on Steering Committee, Working Groups (Experiential/Practice Experiences), consultation process, and accreditation requirements

Sept 19: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

Sept 22: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services/Covenant Health

Oct 15: Experiential Education/Practice Experiences Working Group – hospital and community pharmacists (A Fuller, E Matthews, W Cheng, C MacAlpine)

Nov 4: Experiential Education/Practice Experiences Working Group – hospital and community pharmacists (A Fuller, E Matthews, W Cheng, C MacAlpine)

2015

Jan 12: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services/Covenant Health

Jan 15: Experiential Education/Practice Experiences Working Group – hospital and community pharmacists (A Fuller, E Matthews, W Cheng, C MacAlpine)

Mar 4: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

Mar 5: Laura Schneider, Carmen Baldwin-Dery, Alberta Innovation and Advanced Education Farah Jamil, Bright Drah, Donna Carlson, Alberta Health

Mar 25: Experiential Education/Practice Experiences Working Group – hospital and community pharmacists (A Fuller, E Matthews, W Cheng, C MacAlpine)

Apr 14: Karen Horon, Margaret Gray, Tania Mysak, Wilsen Cheng, Elizabeth Matthews, Stacey Ginther, Alberta Health Services and Gordon Stewart, Covenant Health –Experiential/Practice Experiences feedback from Clinical Practice Leaders, and accreditation requirements

Apr 15: Yvonne Shevchuk, University of Saskatchewan – PharmD for Practicing Pharmacists, PharmD for BSc in Pharmacy Students

Apr 27: Steering Committee Meeting – Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services/Covenant Health, Canadian Society of Hospital Pharmacists Alberta Branch

Apr 29: Curriculum Committee – Alberta College of Pharmacists

May 1: Wayne Hindmarsh, Canadian Council for Accreditation of Pharmacy Programs

May 5: Peter Loewen, University of British Columbia – scheduling, integration

May 14: Yvonne Shevchuk, University of Saskatchewan – pre-pharmacy requirements

May 27: Curriculum Committee – Alberta College of Pharmacists

May 29: Craig Hart, NorQuest College – pathways for Pharmacy Technicians

June 12: Faculty Council – Alberta College of Pharmacists

June 23: Pharmacy Executive Collaborative - Alberta College of Pharmacists, Pharmacists' Association of Alberta, Alberta Health Services

July 22: Lalitha Raman-Wilms, University of Toronto – PharmD program at the U of T

Aug 25: Craig Hart, Andrea Outram, NorQuest College, pathways for pharmacy technicians

Mapping

Initial mapping of the Proposed Doctor of Pharmacy (PharmD) Program

May 27, 2015

Method

- The proposed PharmD curriculum was mapped using course objectives in Course Outlines*

- Course objectives were tagged up to 4 times, based on the program outcomes

- Mapping results were presented to the Curriculum Committee

*IntD 410 - Interprofessional course objectives (HSERC) not included in the data set; Elective course(s) also not included in the data set

Program Outcomes mapped to AFPC Roles

Care Provider (53)

- Assess Patients (19)
- Plan Care (24)
- Follow-up and Evaluate (7)
- Document (3)

Communicator (15)

Collaborator (25)

Manager (28)

Advocate (19)

Scholar (27)

Professional (40)

AFPC – Association of Faculties of Pharmacy of Canada

Program Outcomes
Mapped to Roles

Care Provider	Communicator	Collaborator	Manager	Advocate	Scholar	Professional
53 (25%)	15 (7%)	25 (13.5%)	28 (13.5%)	19 (9%)	27 (13%)	40 (19%)

Initial Course Objectives
Mapped to Roles

Care Provider	Communicator	Collaborator*	Manager	Advocate	Scholar	Professional
590 (30%)	255 (13%)	152 (8%)	93 (5%)	42 (2%)	364 (19%)	467 (24%)

*IntD 410 - Interprofessional course objectives (HSERC) not included in the data set

Mapping Summary

- All program outcomes are addressed in the proposed PharmD program
- Shifts in emphasis from BSc in Pharmacy program
  - From knowledge toward application of knowledge (e.g. patient care and practice skills)
  - From foundational knowledge content toward outcomes/AFPC roles
- Course Outlines/Objectives were revised following Curriculum Committee review
- Further mapping will be conducted once courses are developed and implemented

UNIVERSITY OF ALBERTA
FACULTY OF PHARMACY AND
PHARMACEUTICAL SCIENCES

University of Alberta
Faculty of Pharmacy and Pharmaceutical Sciences
Comprehensive Assessment Plan for the PharmD Program

Table of Contents

Executive Summary

The Comprehensive Assessment Plan (CAP) is designed to assess three main areas of the PharmD offered by the University of Alberta Faculty of Pharmacy and Pharmaceutical Sciences (FoPPS): 1) the Academic Program, 2) Student Experience, and 3) Faculty Experience. Each main area includes the following sub-areas that align with specific Canadian Council for Accreditation of Pharmacy Programs (CCAPP) accreditation standards:

1. Academic Program (Curriculum and Student Learning)
    1.1 Educational Outcomes, General Curriculum Design, and   **(Standards 24-26)**
         Curriculum Management

    1.2 Core Curriculum I – Course Content (biomedical sciences,   **(Standards 27 & 33)**
         pharmaceutical sciences, behavioural, social and administrative
         sciences, clinical sciences and practice skills, and interprofessional
         and intra-professional Education)

    1.3 Core Curriculum II – Experiential Education   **(Standards 28-32)**
    1.4 Teaching, Learning, and Assessment   **(Standards 34-36)**
2. Student Experience
    2.1 Student Services and Activities   **(Standards 15-21)**
    2.2 Recruitment & Admissions   **(Standards 22-23)**

3. Faculty Experience
    3.1 Mentorship, Development, & Administrative Support   **(Standards 12-15)**

Outcomes for each area of assessment are identified based on logic models developed by the Assessment Committee in consultation with appropriate faculty members (See Appendix A).

Assessment data are collected using the following tools (See Appendix B for current versions of relevant tools):
    1. Annual student cohort surveys
    2. Annual student cohort focus groups
    3. Faculty Coordinator meetings
    4. Annual Graduating Student survey
    5. Annual Preceptor surveys
    6. Annual Student Experiential Education surveys
    7. Biennial (every 2 years) faculty member survey

Assessment tools are designed to collect information to evaluate the entire set of outcomes based on assessment maps created by the assessment committee (see Appendix A). Assessment maps will be revised on an as-needed basis (e.g. there has been a course change) following consultation with appropriate faculty members.

Ad hoc assessment activities will be addressed on an as-needed basis. In some instances, special sections will be added to the current suite of assessment tools. In other cases, new tools will be developed to address on-demand assessment needs.

Results of all annual assessment activities will be summarized in annual presentations to appropriate committees or groups as follows:

1. Curriculum Issues Arising from Assessment Activities – Curriculum Committee
2. FoPPS Overview of Assessment Results – Faculty Council
3. FoPPS Assessment Results - Students via annual Town Hall or through APSA

Additional presentations and or reports will be produced on an as needed basis.

Actions taken in response to assessment data are the responsibility of the relevant parties receiving the information and should be communicated to the Assessment Committee in order to document how data are used to improve the program.

On an ongoing basis, the Assessment Committee will seek guidance from the Dean, the Associate Deans, program directors or, the Curriculum Committee about issues that should be targeted for on-demand evaluation.

The general schedule of assessment activities for an academic year is provided below to show how the plan is implemented.

September – December
- Review and update assessments based on previous years assessment results
- **Overview of Assessment Results for Faculty Council**
- Assessment Results Presentation for Students
- Student and Preceptor Experiential Education Surveys Completed in the Fall Term

January – April
- Faculty Coordinator Meetings (x 3)
- Cohort Focus Groups (x 4)
- Cohort Survey (x 3)
- Student and Preceptor Experiential Education Surveys Completed in the Winter Term

May – August
- Graduating Students Survey (May)
- Graduating Students Focus Group (May)
- Faculty Survey (every 2 years) (May)
- Assessment Results Presentations (June – August)
- Student and Preceptor Experiential Education Surveys Completed in the Spring/Summer Terms

Appendix A: Logic Models and Assessment Maps

Key Terms

Logic Model – tools used to identify evaluable outcomes of a program. Logic models show the relationship between program inputs/resources, activities, outputs, and outcomes.

e.g. Inputs → Activities → Outputs → Outcomes

Inputs –resources that allow you to accomplish program activities

Activities – actions that happen as a part of running the program

Outputs – products of the program activities

Outcomes – descriptions of what the program is expected to accomplish, impact, or change

Assessment Maps – tables showing data, assessment tools or processes, frequency of evaluation, and parties responsible for generating, collecting, analyzing, and interpreting data

Overview

Logic models for each sub area of assessment are used to identify assessable program outcomes. Logic models are created by: 1) generating a list of program activities that occur under each sub area of assessment, 2) specifying the resources or inputs that go into accomplishing individual activities, 3) identifying outputs of the individual program activities, and 4) defining outcomes for the set of identified program outputs.

Outcomes from each logic model are used to create assessment maps. Assessment maps define questions to be answered to evaluate each outcome, data to be collected to answer each question, assessment tools or processes that will yield required data, the frequency of data collection, and parties responsible for generating, collecting, analyzing, and interpreting data.

Using logic models to identify outcomes and creating assessment maps to define evaluation processes provides a basis for refining existing and creating new assessment tools and processes. It also ensures useful information is provided to the appropriate parties for interpretation. While this general assessment planning process is meant to be consistent, logic models and assessment maps are subject to change. Initially these logic models and assessment maps are developed based on general Faculty input. As assessment activities are implemented and results are processed, relevant parties will be engaged on a regular basis to review logic models and assessment maps to make sure they are up to date. While drastic changes are not expected year over year, it is possible for new outcomes to be identified or for old outcomes to be revised necessitating assessment maps to be revised.

Logic Models and Assessment Maps for Assessment Area 1: The Academic Program (Curriculum and Student Learning)

Assessment of the Academic Program encompasses four sub areas: 1) Educational Outcomes, General Curriculum Design, and Curriculum Management, 2) Core Curriculum I – Course Content, 3) Core Curriculum II – Experiential Education, and 4) Teaching, Learning, and Assessment. For each sub-area under the Academic Program umbrella, the associated logic model and assessment map are provided. Logic model tables read from input to activities to outputs to outcomes.

Table 1: Logic Model for Assessment Area 1.1 Educational Outcomes, General Curriculum Design, and Curriculum Management

Inputs	Activities
<u>Committees & Groups</u> • Curriculum Committee • Students • Assessment Committee • Faculty Council <u>Key Documents</u> • Internal Program Outcomes Documents • AFPC Educational Outcomes • NAPRA Professional Competencies for Canadian Pharmacists • ACP Standards of Practice • ACP Competencies • CCAPP Accreditation Standards	• Documenting curricular goals and structure • Identifying the list of intended educational outcomes • Documenting/revising the Curriculum Framework (i.e. defining progress maps of knowledge, practice skills, and attitudes; creating a curriculum map) • Defining/revising the Instructional and Assessment Strategies • Systematic course reviews • Developing a systematic overall curriculum review

Outputs	Outcomes
- Curricular goals and structure - List of intended educational outcomes and entry to practice competencies adopted by the program by course - Curriculum Framework (progress/skills maps or a curriculum map detailing how content and practice experiences are sequenced within a given year as well as across years to support optimal development of the required knowledge and practice skills as defined by the list of intended educational outcomes/competencies) - Definitions of instructional and assessment strategies for the different learning contexts students experience throughout the program - Definitions of the individual course review processes - Documentation detailing the processes for the ongoing monitoring of how the current program adheres to the defined curricular framework - Annual/Bi-annual presentations/reports summarizing results from the individual course reviews. These reports should include lists of recommended actions for continuous improvement based on data showing how well courses adhere to the adopted program instructional and assessment strategies as well as data about how well the adopted instructional and assessment strategies support optimal learning - Annual presentations/reports summarizing results of the evaluation of how well the current sequence of courses and practice experiences facilitate optimal progress toward the development of the required knowledge/practice skills/ attitudes based on data showing how well the current suite of programs adhere to the curricular framework as well as data showing how well the required knowledge/practice skills/attitudes are developing	1. Curricular goals meet CCAPP standards for structure and duration 2. Intended outcomes reflect the AFPC outcomes, NAPRA Professional Competencies for Canadian Pharmacists at Entry to Practice, and ACP Standards of Practice 3. The Curriculum framework provides detailed information about how the sequencing of courses and experiences build upon one another to support optimal development of the required knowledge/practice skills/attitudes as defined by the list of intended educational 4. Definitions of instructional and assessment strategies provide general guidance on how to achieve optimal learning in a clinical practice setting that is based on sound educational research as well as our experience with the practical Pharmacy Education context 5. The course review process (informed by the general instructional and assessment strategies) generates documented objective data about the delivery of each course offered as a part of the program that can be used as a basis for continuous improvement; examples of useful data include but are not limited to student feedback, measurement properties of summative assessments, course outlines, etc. 6. The systematic review process facilitates the ability to evaluate how well the current sequence of courses and practice experiences facilitates progress toward the development of the required knowledge/practice skills/attitudes

Table 2: Assessment Map for Assessment Area 1.1 Educational Outcomes, General Curriculum Design, and Curriculum Management

Outcome	Assessment Question(s)	Data Required	Assessment Tool/Process	Frequency	Responsible Parties
Curricular goals meet CCAPP standards for content, structure and duration	Does the program meet content, structure and duration standards for professional degree as indicated by CCAPP?	Length of program. Length of early, mid, and advanced experiential rotations	Review of how well curricular structure aligns with CCAPP guidelines.	As needed (i.e. when program undergoes structural change)	***Collecting, Analyzing, and Interpreting Data:*** Curriculum Committee
Intended outcomes reflect the AFPC outcomes, NAPRA Professional Competencies for Canadian Pharmacists at Entry to Practice, and ACP Standards of Practice	Do the intended program outcomes align with the necessary skills for entry to practice in Alberta as laid out by the AFPC outcomes, NAPRA Professional Competencies for Canadian Pharmacists at Entry to Practice, and ACP Standards of Practice?	List of intended program outcomes by course	The list of intended educational outcomes for our program is explicitly defined. This list is evaluated based on alignment to the AFPC outcomes, NAPRA Professional Competencies for Canadian Pharmacists at Entry to Practice, and ACP Standards of Practice. The list would be reevaluated whenever guiding documents are revised.	As needed (e.g. when outcomes documents are updated)	***Generating:*** Ad hoc working group(s) composed of members from the general Faculty, Ex Ed Team, Curriculum Committee, Preceptors, Employers ***Analyzing:*** Assessment Committee, Curriculum Committee ***Interpreting:*** Curriculum Committee

Outcome	Assessment Question(s)	Data Required	Assessment Tool/Process	Frequency	Responsible Parties
The Curriculum framework provides detailed information about how the sequencing of courses and experiences build upon one another to support optimal development of the required knowledge and practice skills as defined by the list of intended educational outcomes	• Does the framework define the knowledge and practice skills to achieve the intended outcomes for each course? • Does the framework define the levels to which knowledge and practice skills attitudes should be emphasized? • Does the framework indicate how content should be organized to successfully achieve the required knowledge/practice skills/attitudes at the appropriate levels of emphasis? • Does the framework identify the required set of courses and practice experiences and how they should be sequenced in order to impart the required knowledge and practice skills at the appropriate levels of emphasis? • Does the framework	Curriculum Framework	Initially, the current Curriculum Framework needs to be explicitly defined. Once established, the framework would be reviewed during major curriculum transitions.	As needed – i.e. During major curriculum transitions	*Generating:* The following committees will likely be involved to various degrees in producing the initial curriculum framework – Ad Hoc Working Group(s), New Curriculum Development Steering Committee, Curriculum Committee, and the Ex Ed Team. *Analyzing* Curriculum Committee, Assessment Committee *Interpreting:* Curriculum Committee

Outcome	Assessment Question(s)	Data Required	Assessment Tool/Process	Frequency	Responsible Parties
	afford the capability to identify appropriate points as well as parameters for assessing student achievement/competence?				
Definitions of instructional and assessment strategies provide general guidance on how to achieve optimal learning in a clinical practice education setting that is based on **sound educational research** and our own unique experiences	• Are strategies identified for the different types of learning contexts that exist within the curriculum framework? (e.g. practice skills labs, Ex Ed, traditional lectures) • Are the instructional and assessment strategies based on a consideration of sound educational research with specific attention paid to the unique educational context of pharmacy training in general as well as within the UofA context? • Do instructional and assessment strategies align with intended program outcomes • Do the strategies	Instructional and Assessment Strategy Documents Literature reviews of best practices in pharmacy education	An instructional and assessment strategy document must first be produced. Once defined, a review of how well the instructional and assessment strategies reflect best practice based on research in education as well as how well it identifies data to collect would occur on a regular basis.	As needed (Annually or biennially)	***Generating, Analyzing, and Interpreting:*** Ad Hoc Working Group(s) with internal and external members (including representation from practice and science divisions, Ex Ed, and Practice Skills)

Outcome	Assessment Question(s)	Data Required	Assessment Tool/Process	Frequency	Responsible Parties
	identify the types of metrics that can be monitored to determine if instruction and assessment efforts are producing optimal learning?				
The course review process (informed by the general instructional and assessment strategies) generates documented objective data about the delivery of each course offered as a part of the program that can be used as a basis for continuous improvement; examples of useful data include but are not limited to student feedback, measurement properties of summative assessments, course outlines, etc.	• Does the course review process produce data that can be used to evaluate whether courses adhere to the adopted instructional and assessment strategies, as well whether instructional and assessment strategies result in optimal learning?	Documents defining the course review process	The course review should be reviewed to determine how well it works to provide information about adherence to the Faculty's adopted instructional and assessment strategies. The course review process would be reviewed any time the instructional and assessment strategies are revised.	As needed – i.e. when teaching and learning strategies are changed sufficiently enough to warrant revising	*Generating:* Curriculum Committee

Analyzing and Interpreting: Assessment Committee, Curriculum Committee |

| The systematic overall review process facilitates the ability to evaluate how well the current sequence of courses and practice experiences facilitates progress toward the development of the required knowledge and practice skills | • Does the systematic overall review process facilitate the collation of individual course information to produce some form of an overview (e.g. curriculum map) of how well the program is adhering to the specified sequence of knowledge/practice skills/attitudes as defined by the curricular framework? | Documents defining the overall review process | The systematic overall review process should be defined explicitly so that it identifies the data to be collected as well as steps for generating, analyzing, and interpreting data with respect to how well the program is adhering to the defined curriculum framework. | As needed – i.e. when the curriculum framework is changed significantly enough to warrant revising | *Generating:* Curriculum Committee

Analyzing and Interpreting: Assessment Committee, Curriculum Committee |

Table 3: Logic Model for Core Curriculum I – Course Content (Knowledge and Skills)

Inputs	Activities	Outputs
Committees & Groups • Curriculum Committee • Teaching Faculty and Support Staff • Other Health Professionals in Interdisciplinary Teams • Members of the profession Key Documents Internal Program Outcomes Documents Curricular Framework AFPC Educational Outcomes NAPRA Professional Competencies for Canadian Pharmacists CCAPP Standards ACP Standards of Practice ACP Competencies	• Delivery of biomedical sciences, pharmaceutical sciences, social and administrative sciences, and clinical and practice sciences courses	• Course content in the form of lectures, seminars, assignments, practice experiences, and assessments • Course Syllabi • Course Outlines

Outcomes

1. Courses in the biomedical sciences provide the basis for understanding health promotion and disease prevention, and should include (but not be limited to) content in anatomy, biochemistry, immunology, microbiology, molecular and cell biology, physiology, and pathophysiology (any or all of which can be started in the pre-pharmacy program and extended in the professional program).

2. Courses in pharmaceutical sciences are of such depth, scope, timeliness, quality, sequence, and emphasis to provide foundation for and support to the intellectual and clinical objectives of the professional program in pharmacy. This should include but is not limited to medicinal chemistry, pharmacology, toxicology, pharmaceutics, biopharmaceutics, pharmacokinetics, pharmaceutical biotechnology and pharmacogenomics.

3. Courses provide content in the behavioural, social, and administrative pharmacy sciences that provide the basis for understanding and influencing management processes in pharmacy, pharmacy and health systems, the drug safety system, the causes and prevention of health system (including medication) errors, and the role of governments in the planning, funding and delivery of health care services. This should include but is not limited to content in the profession of pharmacy, biostatistics, pharmacoepidemiology, health care economics, pharmacoeconomics, ethical and professional standards of practice, cultural diversity, health systems, business and practice management.

4. Courses include a clinical sciences component that provides for the understanding and acquisition of the knowledge and development of the skills necessary for the delivery of

competent care to, or on behalf of, patients throughout the health care system. This should include, but is not limited to content in clinical pharmacokinetics, complementary and alternative medicines, drug abuse and dependency, drugs in pregnancy, emergency first care, geriatrics, health promotion and disease prevention, immunization, information technology and practice support tools, medication administration, nutrition, pediatrics, pharmacy law and regulatory issues, pharmacotherapeutics, the pharmacist's role in public health, the pharmacist's role in primary care, medication and patient safety practices, and self care/non-prescription drug use.

5. Clinical practice skills are developed through appropriate environments such as practice, laboratory or simulation experiences. This should include but is not limited to collaborative care with other health care providers, compounding, diagnostic and point- of-care testing, disease state management, dispensing and prescription processing, drug information provision including drug literature evaluation (including assessment of primary and tertiary sources), evidence-based decision making, patient assessment and outcomes monitoring, patient and professional communications, patient health information and documentation of care, physical assessment, and medication prescribing or drug therapy management by pharmacists.

6. Interprofessional learning experiences offered throughout the program facilitate the development of patient care communications, teamwork, and problem-solving skills, that broaden the understanding of pharmacy students about the roles and competencies of other health professionals, including pharmacy technicians. This should be achieved using variable modalities such as small group settings, skills simulations, case discussions, assignments, projects, and experiential education rotations.

Table 4: Assessment Map for the Core Curriculum 1 – Course Content

Outcomes	Questions	Data Required	Assessment Tools/Process	Frequency	Parties Responsible
See logic models above	Do the courses and practice experiences that make up the UofA undergraduate pharmacy program: a. cover the content required by the CCAPP accreditation standards (see above)? b. develop the required knowledge and practice skills at the appropriate level of emphasis as defined by the curricular framework? c. build upon/connect with one another in a way that supports optimal learning of the intended knowledge and practice skills as defined by the curricular framework?	Course coordinator reported knowledge and skills taught in each course Student perceptions of knowledge and skills taught in each course Preceptor perceptions of skills developed in each Ex Ed course Faculty feedback on course integration and sequencing Student feedback on course integration and sequencing	Curriculum mapping surveys administered to students, Faculty, and Preceptors within each year of the program (Assessment Committee) Syllabus Database (Assessment Committee) Focus groups with students Biennial coordinator meetings Course and overall curriculum reviews (Curriculum Committee)	Annually and as needed. i.e. (Mapping is done initially and then triggered by major course changes; Database of syllabus updated annually)	***Generating, Analyzing:*** Assessment Committee, Curriculum Committee ***Interpreting:*** Curriculum Committee

Table 5: Logic Model for Core Curriculum 2 – Experiential Education

Inputs	Activities
Committees & Groups • Ex Ed Team • Associate Dean of Undergraduate Programs • Institutional Site Stakeholders (e.g. AHS, Covenant, Capital Care) • Community Site Stake Holders (e.g. Shoppers, Safeway, PCN's) Preceptors • Assessment Committee • Pharmacy Experiential Advisory Committee **Key Documents** • Curricular Goals and Structures • Curriculum Framework • AFPC Educational Outcomes • NAPRA Professional Competencies for Canadian Pharmacists • CCAPP Standards • ACP Standards of Practice • ACP Competencies	• Developing and delivering course content consistent with practice and the classroom-based curriculum. • Recruiting and retaining exemplary preceptors and practice sites for which students can choose from for practice experiences (i.e. coordinating the identification experiential placement sites and preceptors within community, hospital, ambulatory, and primary care network settings, assigning students to practice sites) • Preparing students for their practice experiences (explain roles, responsibilities, expectations, and general processes) • Developing and managing a system to monitor student competency as well as provide formative feedback throughout a student's progression through the experiential program • Developing /revising preceptor training resources (guides, on-line materials, workshops) that describe preceptor roles and responsibilities with respect to supporting learning as well as information about how to conduct student formative and summative assessment • Developing and managing a system to monitor and provide feedback about site/preceptor effectiveness • Ensuring all practice sites have a formal affiliation with the University for the purposes of taking student learners.

Outputs	Outcomes
• Model of experiential education including but not limited to policies and processes/criteria related to selection of sites and preceptors, models of supervision, definitions of practices activities, schedules of rotations, processes for monitoring assessment consistency across preceptors and sites, processes for assigning students fairly to available sites, processes for ensuring students meet applicable safety requirements prior to entering rotations • Definitions of the educational assessment process including how to conduct formative and summative assessment • Training manuals/guides/workshops for preceptors describing preceptor roles and responsibilities with respect to supporting learning as well as information about how to conduct student formative and summative assessment • Student and preceptor orientations/education programs including manuals, guides, and workshops • Forms for student formative and summative evaluation • Forms for preceptor evaluation • Documentation detailing the ongoing monitoring of practice experience quality and curricular coverage • Contractual agreement between experiential education sites and the Faculty/University	1. Experiential education practice experiences offer students the opportunity to develop clinical skills to assist a variety of patients, including the management of patients with acute illnesses and/or chronic conditions in primary care, long-term care, critical or emergency care, and those in the transitions between levels of care. 2. Student tasks during all stages of experiential learning contribute meaningfully and productively to direct patient care and the professional activities of the practice site at a level appropriate for the student's year of study. 3. The model of supervision at each stage of the practice experience ensures oversight, coordination, guidance, instruction, and assessment of each student. 4. Students are supervised by qualified preceptors. 5. Experiential Education practice sites provide interprofessional collaborative learning environments and have amenities to support learning. 6. Contractual/MOU Agreements are in place and reviewed on an as needed basis

Table 6: Assessment Map for the Core Curriculum II – Experiential Education

Outcomes	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Responsible Parties
The experiential education model offers students the opportunity to develop clinical skills to assist a variety of patients, including the management of patients with acute illnesses and/or chronic conditions in primary care, long-term care, critical or emergency care, and those in the transitions between levels of care.	Does the model of experiential education provide students opportunity to practice their clinical skills with patients who present with acute illnesses and/or chronic conditions in primary care, long-term care, critical or emergency care, and those in the transitions between levels of care? Are rotations long enough for students to develop the set of required skills to a minimal level of competency? Are rotations long enough to afford preceptors enough information to assess student competency reliably?	Model of Experiential Education Faculty, student, and preceptor feedback on rotation structure, integration and sequencing	Initially the model of experiential education should be made explicit. Review would be based on data from the following sources: Student and Preceptor surveys on Ex Ed Model structure, integration, and sequencing Biennial coordinator meetings	Annually, however, defining the model occurs on and as needed basis – (i.e. whenever major transitions in Experiential Education programing occur)	***Generating, Analyzing:*** Assessment Committee, Ex Ed Team ***Interpreting:*** Ex Ed Team, Curriculum Committee

Outcomes	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Responsible Parties
Student tasks during all stages of experiential learning contribute meaningfully and productively to direct patient care and the professional activities of the practice site at a level appropriate for the student's year of study.	Do yearly rotations provide students with meaningful opportunities to practice and develop the required direct patient care skills as outlined by the curricular framework?	Course coordinator/Ex Ed team reported skills taught in each rotation Student perceptions of skills taught in each rotation Preceptor perceptions of skills taught in each rotation	Curriculum mapping surveys administered to students, preceptors, and Ex Ed Faculty Focus groups with students and preceptors Biennial coordinator meetings	Annually, however, Curriculum mapping surveys might not be required every year. Less comprehensive mapping surveys may be useful and warranted.	***Generating, Analyzing:*** Assessment Committee, Ex Ed Team ***Interpreting:*** Ex Ed Team, Curriculum Committee
Orientation materials clearly explain students' roles, responsibilities, expectations, and the general processes of their practice experiences.	After having gone through orientation, do students understand their roles, responsibilities, expectations, and the general processes of their practice experience?	Student perceptions of their roles, responsibilities, expectations, and general processes.	Student Rotation Surveys	Annually	***Generating, Analyzing:*** Assessment Committee, Ex Ed Team ***Interpreting:*** Ex Ed Team
The model of supervision at each stage of the practice experience ensures oversight, coordination, guidance, instruction,	Are the procedures for overseeing and coordinating student placements effective at identifying quality sites and preceptors and fairly assigning students? Does the	Student and preceptor perceptions of oversight and coordination procedures and	Student and Preceptor Rotation Surveys Course Reviews (i.e. this is where	Annually	***Generating, Analyzing:*** Assessment Committee, Ex Ed Team

Outcomes	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Responsible Parties
and assessment of each student.	model of supervision include assessment tools used for formative assessment to generate targeted feedback that can be used to improve learning? Does the model of supervision include summative assessments of student competency that are reliable and valid indicators of student achievement of the required knowledge/skills/ attitudes? Does the preceptor orientation/training (manuals/guides/workshops) clearly define the roles, responsibilities, and expectations of a preceptor as a supervisor, an educator, and an evaluator? Does preceptor education clearly define the criteria/processes for student evaluation through training and additional resources? Does student orientation/education (manuals/guides/workshops) clearly define student roles, responsibilities, and expectations as learners and health care providers as well	policies Student and preceptor perceptions of training and education materials Student and preceptor perceptions of assessments and procedures (both formative and summative) Indicators of summative assessment quality (e.g. reliability indexes, validity coefficients)	assessment data can be brought forth for consideration)		*Interpreting:* Ex Ed Team, Curriculum Committee

Outcomes	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Responsible Parties
	as explains criteria for evaluation?				
Student's are supervised by qualified preceptors.	Does the preceptor orientation/training (manuals/guides/workshops) clearly define the roles, responsibilities, and expectations of a preceptor as a supervisor, an educator, and an evaluator? Does the system of preceptor evaluation produce meaningful information that can be used to evaluate and provide feedback to preceptors/sites about their skills as a supervisor, educator, and evaluator?	Preceptor and site screening/training procedures Preceptor evaluation data	Course Review Student evaluations of preceptors	Annually	*Generating, Analyzing:* Assessment Committee, Ex Ed Team *Interpreting:* Ex Ed Team, Curriculum Committee
Experiential Education practice sites provide interprofessional collaborative learning environments and have amenities to support learning.	Is there a system in place to ensure that in at least one of the students' experiential rotations they are provided with an opportunity to work in a meaningful interprofessional collaborative learning environment?	Course Handbooks/Syllabi Student perceptions	Course Review Student surveys	Annually	*Generating, Analyzing:* Assessment Committee, Ex Ed Team *Interpreting:* Ex Ed Team, Curriculum Committee

Table 7: Logic Model for Teaching, Learning, and Assessment

Inputs	Activities
Committees & Groups • Teaching Faculty and Support Staff • Preceptors • Students • Practice and Science Divisions • Faculty Development Committee • Curriculum Committee • Ex Ed Team • Assessment Committee Key Documents • Curricular Framework • Course Syllabi • Course Outlines • Instruction and Assessment Strategies • AFPC Educational Outcomes • NAPRA Professional Competencies for Canadian Pharmacists • CCAPP Standards • ACP Standards of Practice • ACP Competencies	• Lectures • Seminars • Labs • Practice Skills Labs • Experiential Education Rotations • Formative Assessment • Assignments • Summative Exams • Remediation

Outputs	Outcomes
• Course materials (notes, slides, references, resources) • Formative Assessments • Assignments (labs, performance assessments) • Scoring tools (Rubrics, answer keys) • Midterms and Final Exams • Criteria, policies and procedures for monitoring academic progression as well as for grounds for academic probation, dismissal, appeals and readmission • Systems for monitoring academic progression • Definition of remediation strategies for students identified as at risk based on objective assessment data	1. Teaching and learning activities support the needs and learning styles of diverse learners, while appropriately developing the knowledge, skills, attitudes and judgment required of the pharmacy graduate. 2. Formative assessments adhere to the principals of formative assessment. 3. Assessment tools used for summative evaluation of student knowledge and skills (i.e. major assignments, labs, performance assessments, midterms, and finals) are of strong psychometric quality. 4. Student assessment data can be used to monitor individual as well as group progress. 5. Students identified as at risk are provided with opportunities for remediation.

Table 8: Assessment Map for Teaching, Learning and Assessment

Outcomes/Questions		Data Required	Assessment Tool/Process	Frequency	Parties Responsible
Teaching and learning activities support the needs and learning styles of diverse learners, while appropriately developing the knowledge, skills, attitudes and judgment required of the pharmacy graduate.	• Are the teaching and learning activities used in courses/ practice experiences chosen to align with the content being taught/experiences being offered so as to promote optimal learning? • Do the teaching and learning activities promote life-long learning habits through an emphasis on active, self-directed/self-regulated learning? • Do the teaching and learning activities foster ethical responsibility for maintaining and enhancing professional competence? • Do the teaching and learning activities used in courses/ practice experiences develop critical thinking, problem-solving, and oral and written	Course Syllabi/Outlines Student perceptions Employer perceptions PEBC examination results Course grades	Course Reviews Student Surveys and Focus Groups Employer survey Review of PEBC examination results	Annually	***Generating and Analyzing:*** Assessment Committee, Curriculum Committee and ad hoc working groups ***Interpreting:*** Curriculum Committee, Practice and Science Divisions, Faculty Development Committee

Outcomes/Questions		Data Required	Assessment Tool/Process	Frequency	Parties Responsible
	communication skill? • Do 100% of graduates meet entry to practice outcomes upon graduation as indicated by the PEBC exam results? • Do employers report that student have the necessary knowledge, skills, attitudes and judgment required of the pharmacy graduate				

Outcomes/Questions		Data Required	Assessment Tool/Process	Frequency	Parties Responsible
Formative assessments adhere to the principals of formative assessment.	• Are formative assessments truly formative (i.e. no grades attached to feedback)? • Do formative assessments provide specific and targeted feedback that can be used to improve learning? • Are students provided with sufficient opportunities to incorporate feedback into their learning?	Course Syllabi/Outlines Educational assessment data Student perceptions	Course Reviews Educational Assessment Survey Student Surveys and Focus Groups	Annually	***Generating and Analyzing:*** Assessment Committee, Curriculum Committee ad hoc working groups ***Interpreting:*** Curriculum Committee, Practice and Science Divisions, Faculty Development Committee

Outcomes/Questions		Data Required	Assessment Tool/Process	Frequency	Parties Responsible
Assessment tools used for summative evaluation of student knowledge and skills (i.e. major assignments, labs, performance assessments, Midterms, and Finals) are of strong psychometric quality.	• Are summative assessments and their associated scoring tools reliable? • Do scores on summative assessments demonstrate concurrent and predictive validity as indicated by associations with other indicators of student performance (i.e. similar courses in the program, PEBC domain specific scores)?	Course Syllabi/Outlines Educational assessment data Course grades in pre-requisites concurrent course grades, PEBC domain specific scores	Course Reviews Educational Assessment Survey Calculating correlations between student performance and concurrent and predictive validity variables (e.g. courses in any given year and PEBC examination results, respectively)	Annually	***Generating, Analyzing and Interpreting:*** Assessment Committee, Curriculum Committee and ad hoc working groups, Practice and Science Divisions, Faculty Development Committee

Outcomes/Questions		Data Required	Assessment Tool/Process	Frequency	Parties Responsible
Student assessment data can be used to monitor individual and group progress.	Do summative and formative assessment data produce timely (early and often) information about how students are progressing toward achieving the competencies that will be tested on the PEBC qualifying exams?	Student scores on skill based assessments	Scores on assessments most likely to relate to the scores on the different PEBC sub scores as defined by the NAPRA competencies can be calculated and used as a basis for creating student and group trajectories	Bi-annually	***Generating, Analyzing, and Interpreting:*** Ad hoc working groups, Assessment Committee, Individual Course Coordinators, Associate Dean of Student Affairs

Outcomes/Questions		Data Required	Assessment Tool/Process	Frequency	Parties Responsible
Students identified as at risk are provided with high quality opportunities for remediation.	Are remediation activities tailored to the student's learning needs as well as to the particular parts of the program with which the student is experiencing difficulty?	Procedures and criteria for being identified as at risk Procedures for remediation Student perceptions	Review of the procedures and criteria for being identified as at risk. Review of procedures for planning remediation Student surveys and focus groups	Ongoing	***Generating:*** Associate Dean of Student Affairs, Individual Course Coordinators, Assessment Committee ***Analyzing:*** Assessment Committee ***Interpreting:*** Ad hoc working groups, Practice and Science Divisions, Ex Ed Team, Associate Dean of Student Affairs

Logic Models and Assessment Maps for Assessment Area 2: Student Experience

The Student Experience area encompasses two sub areas: 1) Student Services and Activities, and 2) Recruitment and Admissions. For each sub-area, the associated logic model and assessment map are provided.

Table 9: Logic Model for Student Services and Activities

Inputs	Activities
<u>Committees and Groups</u> • Associate Dean of Student Affairs • Office of the Dean • Student Services Faculty and Staff members • APSA • Assessment Committee • Faculty Council <u>Key Documents</u> • Committee TORs • University of Alberta Calendar • UAPPOL	• Collection and management of student records. • Developing access to information through online and hardcopy resource material. • Student orientation day • Career/Job Fair • Research Day • White Coat ceremony • Student Town Hall • Communication • Mentoring Programs • Student Advising
Outputs	**Outcomes**
• Record systems that manage oversee and coordinate student records and affairs • Information about how to access financial aid and health services • Academic advising and career planning resources • Access to policies that address student rights and students with disabilities • New student orientation • Pharmacy Student Handbook • Student Code of Conduct • Procedures for dealing with violations of the Student Code of Conduct • Provision of information about the Student Code of Conduct • Policies for attending academic or professional conferences • Systems, guidelines, documents to define mentoring processes/roles • Systems, guidelines, documents to define advising processes/roles	1. The Faculty must have an ordered, accurate and secure system of student records that are maintained in accordance with University policies and Federal Provincial Territorial (FPT) privacy legislation 2. Student services personnel within the Faculty must be appropriately trained to provide necessary services, and be familiar with the range of support services available at the University to refer students as appropriate. 3. The Faculty must have student representation on relevant Faculty committees. 4. The Faculty must have suitable mechanisms to develop student leadership and professionalism, forums for student dialogue, and must ensure adequate communication of student opinions and perspectives. 5. The Faculty must have adequate space for student activities and organizations. 6. The Faculty must provide an environment and culture that promotes professional

	behaviour and harmonious relationships among students, faculty, administrators, preceptors and staff.
	7. The Faculty must support student participation in provincial, regional and national pharmacy, scientific, and other professional organizations and activities.
	8. The Faculty must implement strategies and activities to strengthen the professional culture of the student experience.
	9. Mentoring programs result in meaningful student-mentor experiences both while in the program as well as after students graduate
	10. Advising systems are accessible and provide students with the information they need to resolve any program issues

Table 10: Assessment Map for Student Services and Activities

Outcomes	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Parties Responsible
The Faculty must have an ordered, accurate and secure system of student records that are maintained in accordance with University policies and FPT privacy legislation.	Are record systems ordered, accurate and secure? Do they adhere to University and FPT privacy policies?	Descriptions of records systems	Review of records systems policies and procedures	As needed (i.e. when policies change)	***Generating, Analyzing and Interpreting:*** Student Services
Student services personnel within the Faculty must be appropriately trained to provide necessary services, and be familiar with the range of support services available at the University to refer students as appropriate.	Can Student Services staff direct students where to find all relevant program information? Are students satisfied that Student Services can support their needs?	Student perceptions Student Services Perceptions	Student Surveys and Focus groups Student services Staff Focus Groups	Annually	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Student Services, Assistant Dean of Student Affairs

The Faculty must have student representation on relevant Faculty committees.	Are students adequately represented on major committees?	Committee TORs	Survey of Committee membership to view coverage	Annually	***Generating, Analyzing and Interpreting:*** Office of the Dean
The Faculty must have suitable mechanisms to develop student leadership and professionalism, forums for student dialogue, and must ensure adequate communication of student opinions and perspectives.	Are students afforded opportunities to voice their opinions and perspectives about relevant aspects of the Pharmacy program? Does Faculty support student lead governance? Do students feel satisfied with the communication between them and the Faculty?	Student perceptions	Student surveys and focus groups	Annually	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Office of the Dean
The Faculty must have adequate space for student activities and organizations.	Are students satisfied with the amount and quality of the space provided for student activities and organizations?	Student perceptions	Student surveys and focus groups	Annually	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Office of the Dean

The Faculty must provide an environment and culture that promotes professional behaviour and harmonious relationships among students, faculty members, administrators, preceptors and staff.	Do students perceive the environment as supporting relationships between students, faculty members, administrators, preceptors and staff? Are students aware of the student code of conduct? Do students understand the principles of the code of conduct and are they aware of the consequences of violations of the code?	List of activities that promote relationships among students, faculty members, administrators, preceptors and staff. Student perceptions Faculty perceptions	Student surveys and focus groups Faculty Surveys	Annually	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Office of the Dean
The Faculty must support student participation in provincial, regional and national pharmacy, scientific, and other professional organizations and activities.	Does the Faculty encourage attendance at academic and professional conferences? Is adequate funding available to students for attendance at academic or professional conferences?	Policies and Support for attending conferences Attendance data Student perceptions	Student surveys and focus groups	As needed – i.e. when policy changes	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Office of the Dean

| The Faculty must implement strategies and activities to strengthen the professional culture of the student experience. | Does the Faculty support participation in professional curricular and extracurricular activities? Does the program offer service learning, volunteer experiences, community-engaged scholarship, social   accountability or similar initiatives? Does the Faculty encourage participation in student inspired interprofessional activities? Does the Faculty support other professional activities, such as white coat ceremonies and student-developed   codes of conduct, honour codes, and policies to guide to guide respectful student body relationships with the pharmaceutical industry? | Curriculum Framework

Model of Experiential Education

Student perceptions | Review of the curriculum

Student surveys and focus groups | Annually or as needed (i.e. when changes occur to the curriculum) | *Generating and Analyzing:* Assessment Committee

Interpreting: Office of the Dean |
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Table 11: Logic Model for Recruitment and Admissions

Inputs	Activities
Committees & Groups • Associate Dean of Student Affairs • Admissions Committee • Student Services • University of Alberta Registrars Office • Assessment Committee **Key Documents** • CCAPP Accreditation Standards • University of Alberta Calendar	• University of Alberta Open House • Application submission • Initial Screening • Admissions Decisions
Outputs	**Outcomes**
• Recruitment materials • Pre-requisite course list • Pre-requisite standards for admission in the form of required GPA • Letter of Intent Template • Description of the admissions policies and procedures	1. The Faculty must establish a recruitment program to provide a pool of well-qualified applicants. 2. Admissions criteria must include the satisfactory completion of post- secondary, pre-professional course requirements in general education and basic and biomedical sciences. 3. In addition to academic requirements, admissions criteria must include other devices or tools that are designed to assess the suitability of candidates to enter the profession of pharmacy. 4. The Faculty must develop and publish their mechanism for the weighting of admission criteria and the data that are used to determine offers of admission

Table 12: Assessment Map for Recruitment and Admissions

Outcomes/Questions	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Parties Responsible
The Faculty must establish a recruitment program to provide a pool of well-qualified applicants.	Does the recruitment program target high quality as well as traditionally underrepresented groups? Does the recruitment program result in a diverse pool of qualified applicants?	Recruitment Materials Demographic and performance data of admitted students from previous years Faculty perceptions	Review of recruitment materials Analysis of student performance (especially in year one of the program) Faculty Survey	Annually	***Generating and Analyzing:*** Assessment Committee, Associate Dean of Student Affairs, Admissions Committee ***Interpreting:*** Associate Dean of Student Affairs, Admissions Committee

Outcomes/Questions	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Parties Responsible
Admissions criteria must include the satisfactory completion of post-secondary, pre-professional course requirements in general education and basic and biomedical sciences.	Are the pre-requisite courses representative of basic and biomedical sciences (general chemistry, organic chemistry, biological sciences, mathematics, information and communication technologies, and physical sciences); general education (humanities, behavioural sciences, social sciences, and communication skills)? Are there established levels of expected academic achievement in the pre-professional requirements?	Admissions criteria	Review of pre-requisite course requirements	As needed (i.e. when admissions criteria change)	***Generating, Analyzing, and Interpreting:*** Associate Dean of Student Affairs, Admissions Committee, Curriculum Committee, Admissions Committee

Outcomes/Questions	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Parties Responsible
The admission policies and procedures materials define essential skills relevant to performance expectations in the academic program and subsequent practice of a pharmacist that could assist a potential applicant to accurately gauge their interest and suitability for the field of pharmacy.	Do students who complete the program feel the admissions policies and procedures helped them accurately gauge their interest and suitability for the field of pharmacy?	Student perceptions	Graduating Student Survey	Annually	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Associate Dean of Student Affairs, Admissions Committee
In addition to academic requirements, admissions criteria must include other devices or tools that are designed to assess the suitability of candidates to enter the profession of pharmacy.	Does the admissions process have at least one other reliable and valid (predictive validity/concurrent validity) source of data to inform the decision making process?	Scores/results from other admissions tools Pre-requisites admissions GPA Course GPA PEBC subscores (OSCE and written subscores)	Calculate correlations between admissions tool scores, program course grades, PEBC subscores	Annually	***Generating and Analyzing:*** Director of Assessment, Associate Dean of Student Affairs ***Interpreting:*** Associate Dean of Student Affairs, Admissions Committee

Outcomes/Questions	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Parties Responsible
The Faculty must develop and publish their mechanism for the weighting of admission criteria and the data that are used to determine offers of admission.	Does the admission policies and procedures material clearly outline how admissions decisions are made?	Student perceptions	Student Survey	Annually	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Associate Dean of Student Affairs

Logic Model and Assessment Map for Assessment Area 3: Faculty Experience
The Faculty Experience area encompasses one sub area: 1) Mentorship, Development, and
Administrative Support. The associated logic model and assessment map are provided below.

Table 13: Logic Model for Mentorship, Development, and Administrative Support

Inputs	Activities
Committees and Groups • Office of the Dean • Faculty and Staff members • Teaching Award Committee • Awards Committee	• New Staff Orientation • Mentorship • Peer Teaching Reviews • Faculty Awards Adjudication
Outputs	**Outcomes**
• Academic Staff Orientation Handbook • Mentorship Plan • Teaching Award • Award of Merit	1. The department provides adequate orientation materials for practice and science Faculty. 2. The department supports and provides resources for the enhancement of teaching and learning practice. 3. The department offers guidance on academic and career development through multiple resources including but not limited to a mentorship plan. 4. The department encourages and supports Faculty to contribute to pharmacy knowledge through scholarship and research. 5. The department provides support for attendance at academic or professional conferences. 6. There must be adequate and appropriately skilled staff resources, such as administrative assistants, secretaries, student services personnel, teaching assistants, laboratory instructors, and information and communication technology personnel.

Table 14: Assessment Map for Mentorship, Development, and Administrative Support Logic Model

Outcomes/Questions	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Parties Responsible
The Faculty provides adequate orientation materials for practice and science faculty members.	How satisfied are faculty members with the orientation materials and activities?	faculty member perceptions	Faculty Survey	Biennially	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Executive Committee
The Faculty supports and provides resources for the enhancement of teaching and learning practice.	How satisfied are faculty members with the resources and incentives designed to support and lead to enhancements of teaching and learning?	faculty member perceptions	Faculty Survey	Biennially	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Executive Committee
The Faculty offers guidance on academic and career development through multiple resources including but not limited to a mentorship plan.	How satisfied are faculty members with the mentorship plan? Do they find it useful?	faculty member perceptions	Faculty Survey	Biennially	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Executive Committee

Outcomes/Questions	Assessment Questions	Data Required	Assessment Tool/Process	Frequency	Parties Responsible
The Faculty encourages and supports faculty members to contribute to pharmacy knowledge through scholarship and research.	How satisfied are faculty members with the support they receive to contribute to pharmacy knowledge through scholarship?	faculty member perceptions	Faculty Survey	Biennially	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Executive Committee
The Faculty provides support for attendance at academic or professional conferences.	How supported are faculty members to attend professional conferences? How often do faculty members attend academic or professional conferences?	faculty member perceptions	Faculty Survey	Biennially	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Executive Committee
There must be adequate and appropriately skilled staff resources, such as administrative assistants, secretaries, student services personnel, teaching assistants, laboratory instructors, and information and communication technology personnel.	How satisfied are faculty members with the level of administrative, student services, teaching assistant, laboratory instructor, and information and communication technology support they receive?	faculty member perceptions	Faculty Survey	Biennially	***Generating and Analyzing:*** Assessment Committee ***Interpreting:*** Executive Committee

Appendix B: Assessment Tools

Annual Cohort Survey

Q1 Annual Student Survey

The following survey is designed to collect information about your experience in the University of Alberta pharmacy degree program IN YOUR CURRENT YEAR OF THE PROGRAM. The survey is voluntary and anonymous and will take approximately 10-15 minutes to complete. Your feedback is invaluable and will ensure we are better equipped to respond to students needs. Thank you for your time.

Q2 Please select your current year of the program:
❍ 1st year (1)
❍ 2nd year (2)
❍ 3rd year (3)

Q3 Curriculum, Teaching, and Learning

Using a scale from 1 - 6 where 1 = strongly disagree and 6 = strongly agree, please indicate how strongly you agree or disagree that DURING MY CURRENT YEAR OF THE PROGRAM:

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
courses were sequenced and integrated in a way that made sense. (1)	❍	❍	❍	❍	❍	❍
teaching methods (e.g. didactic, problem based, small group, case discussions, skills simulations) utilized were effective at delivering the required knowledge and skills. (2)	❍	❍	❍	❍	❍	❍
teaching and learning activities emphasized active, self-directed learning, where appropriate. (3)	❍	❍	❍	❍	❍	❍
teaching and learning activities fostered ethical responsibility for maintaining professional competence. (4)	❍	❍	❍	❍	❍	❍
teaching and learning activities developed critical thinking and problem solving skills. (5)	❍	❍	❍	❍	❍	❍
teaching and learning activities helped to develop strong oral and written communication skills. (6)	❍	❍	❍	❍	❍	❍
outcomes assessed on assignments and tests aligned with material taught in lectures, seminars and labs. (7)	❍	❍	❍	❍	❍	❍
assessment methods (e.g. multiple-choice tests, assignments, group projects, cases, skills simulations) utilized afforded the opportunity to demonstrate the knowledge and skills delivered in lectures, seminars and labs. (8)	❍	❍	❍	❍	❍	❍
the amount of feedback I received was sufficient.						
when I received feedback it was specific and useful information that helped improve my learning. (9)	❍	❍	❍	❍	❍	❍
the schedule and pace provided sufficient time to complete assignments and prepare for exams. (10)	❍	❍	❍	❍	❍	❍

	○	○	○	○	○	○
courses afforded sufficient opportunity to practice and develop clinical SCIENCE skills e.g. pharmacotherapeutics, clinical pharmacokinetics, medication administration, Immunization. (11)	○	○	○	○	○	○
courses afforded sufficient opportunity to practice and develop clinical PRACTICE skills e.g. patient and professional communication, compounding, point-of-care testing, dispensing and prescription processing, evidenced based decision making, drug information provision, physical assessment (11.1)	○	○	○	○	○	○
connections between the pharmaceutical science CONTENT (e.g. pharmaceutics, medicinal chemistry, pharmacology, pharmacokinetics) and clinical PRACTICE were clear. (12)	○	○	○	○	○	○
If Please select your current year of the program: 1st year Is Selected tasks during service learning provided opportunities to participate in meaningful and productive client centred care. (13)	○	○	○	○	○	○
If Please select your current year of the program: 2nd year Is Selected tasks during the first community placement provided opportunities to contribute meaningfully and productively to patient care. (14)	○	○	○	○	○	○
If Please select your current year of the program: 2nd year Is Selected practice experiences the first community placement offered opportunities to develop clinical skills to assist a variety of patients. (15)	○	○	○	○	○	○
If Please select your current year of the program: 3rd year Is Selected tasks during the first acute care placement provided opportunities to contribute meaningfully and productively to patient care. (16)	○	○	○	○	○	○
If Please select your current year of the program: 3rd year Is Selected practice experiences first acute care placement offered	○	○	○	○	○	○

opportunities to develop clinical skills to assist a variety of patients. (17)						
interprofessional learning experiences helped to develop my communication, teamwork and problem solving skills. (18)	❍	❍	❍	❍	❍	❍

Answer If Curriculum, Teaching, and Learning   Using a scale from 1 - 6 where 1 = strongly disagree and 6 = strongly agree, please indicate how strongly you agree or disagree with the following state... - Strongly Disagree Is Greater Than 0

Q12 Curriculum, Teaching, and Learning (Comments)   We would now like to collect information on statements you rated strongly disagree or disagree. According to your ratings you STRONGLY DISAGREED with the following statements. Please provide any information you can for why you selected this rating:

Answer If Curriculum, Teaching, and Learning   Using a scale from 1 - 6 where 1 = strongly disagree and 6 = strongly agree, please indicate how strongly you agree or disagree with the following state... - Disagree Is Greater Than 0

Q16 Curriculum, Teaching, and Learning (Comments)   According to your ratings you DISAGREED with the following statements. Please provide any information you can for why you selected this rating:

Q4 Pharmacy Practice Skills Experiences

Based on your personal experiences in the practice skills courses (Pharm 304, 314, 324, and 334 or Pharm 330 or Pharm 430), please indicate how strongly you agree or disagree that DURING MY CURRENT YEAR OF THE PROGRAM:

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
sequencing of skills taught in the practice skills course made sense. (1)	❍	❍	❍	❍	❍	❍
skills taught in the practice skills course built upon one another to strengthen my overall competency with the patient care process and other practice skills. (2)	❍	❍	❍	❍	❍	❍
If Please select your current year of the program: 1st year Is Not Selected skills revisited in the practice skills course were taught to acknowledge how expectations change depending on the complexity of the therapeutic and/or practice context. (3)	❍	❍	❍	❍	❍	❍
practice skills course seminars/lectures provided the background information necessary to effectively prepare for lab activities and assessments. (4)	❍	❍	❍	❍	❍	❍
being able to observe my peers during practice skills lab activities and assessments was a valuable learning opportunity. (5)	❍	❍	❍	❍	❍	❍
I had sufficient opportunities for guided practice of skills that were eventually assessed in lab. (6)	❍	❍	❍	❍	❍	❍
feedback provided during lab activities by lab facilitators or TAs helped to improve my understanding of concepts and skills. (7)	❍	❍	❍	❍	❍	❍
course coordinator feedback helped to improve my understanding of concepts and skills. (8)	❍	❍	❍	❍	❍	❍
course coordinator feedback was received in a timely manner. (9)	❍	❍	❍	❍	❍	❍
lab debriefing sessions provided valuable feedback that improved my understanding of concepts and skills. (10)	❍	❍	❍	❍	❍	❍
performance criteria for completing PATIENT ASSESSMENT	❍	❍	❍	❍	❍	❍

were stated in clear and specific terms. (11)						
performance criteria for completing a PHARMACOTHERAPY WORKUP were stated in clear and specific terms. (12)	❍	❍	❍	❍	❍	❍
performance criteria for demonstrating PATIENT-CENTRED COMMUNICATION were stated in clear and specific terms. (13)	❍	❍	❍	❍	❍	❍
performance criteria for completing DOCUMENTATION were stated in clear and specific terms. (14)	❍	❍	❍	❍	❍	❍
performance criteria for demonstrating EVIDENCED BASED DECISION MAKING were stated in clear and specific terms. (15)	❍	❍	❍	❍	❍	❍
performance criteria for SELF-REFLECTION were stated in clear and specific terms. (16)	❍	❍	❍	❍	❍	❍
performance criteria for complete PATIENT ASSESSMENT were applied in a consistent manner. (17)	❍	❍	❍	❍	❍	❍
performance criteria for completing a PHARMACOTHERAPY WORKUP were applied in a consistent manner. (18)	❍	❍	❍	❍	❍	❍
performance criteria for demonstrating PATIENT-CENTRED COMMUNICATION were applied in a consistent manner. (19)	❍	❍	❍	❍	❍	❍
performance criteria for completing DOCUMENTATION were applied in a consistent manner. (20)	❍	❍	❍	❍	❍	❍
performance criteria for demonstrating EVIDENCED BASED DECISION MAKING were applied in a consistent manner. (21)	❍	❍	❍	❍	❍	❍
performance criteria for SELF-REFLECTION were applied in a consistent manner. . (22)	❍	❍	❍	❍	❍	❍
outcomes assessed in practice skills labs emphasized process over therapeutic knowledge. (23)	❍	❍	❍	❍	❍	❍
outcomes assessed in lab aligned with material taught in lectures/seminar. (24)	❍	❍	❍	❍	❍	❍
where possible, lab activities reinforce important therapeutic concepts taught elsewhere in the curriculum. (25)	❍	❍	❍	❍	❍	❍
lectures, seminars and lab activities enhanced my clinical practice	❍	❍	❍	❍	❍	❍

skill competence. (26)						
where possible, pharmaceutical science content is integrated into practice skill courses effectively. (26.1)	○	○	○	○	○	○
If Please select your current year of the program: 2nd year Is Selected the patient care process taught in the practice skills course is consistent with the patient care process taught in 1st year. (27)	○	○	○	○	○	○
If Please select your current year of the program: 3rd year Is Selected the connection between 2nd year and 3rd year practice skills is clear. (28)	○	○	○	○	○	○
If Please select your current year of the program: 3rd year Is Selected skills were developed to a higher level in 3rd year than compared to 2nd year. (29)	○	○	○	○	○	○
If Please select your current year of the program: 3rd year Is Selected I am more confident in my ability to perform practice skills at a higher level after completing 3rd year than I was after completing 2nd year. (30)	○	○	○	○	○	○

Answer If Pharmacy Practice Skills Experiences   Based on your personal experiences in the practice skills courses and/or other practice skills activities provided in the curriculum, please indicate h... - Strongly Disagree Is Greater Than 0

Q13 Pharmacy Practice Skills Experiences (Comments)   According to your responses, you STRONGLY DISAGREED with the following statements. Please provide any information you can about why you selected this rating below:

Answer If Pharmacy Practice Skills Experiences   Based on your personal experiences in the practice skills courses and/or other practice skills activities provided in the curriculum, please indicate h... - Disagree Is Greater Than 0

Q17 Pharmacy Practice Skills Experiences (Comments)   According to your responses, you DISAGREED with the following statements. Please provide any information you can about why you selected this rating below:

Q6 Student Experience   Please indicate how strongly you agree or disagree that DURING YOUR CURRENT YEAR OF THE PROGRAM:

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
academic advising made available to me by the Faculty meets my needs as a student. (1)	❍	❍	❍	❍	❍	❍
support provided by the office of Students' Services meets my needs as a student. (2)	❍	❍	❍	❍	❍	❍
students are afforded sufficient opportunities to voice their opinions and concerns. (3)	❍	❍	❍	❍	❍	❍
the Faculty communicates effectively about news, events and important matters. (4)	❍	❍	❍	❍	❍	❍
faculty, teaching assistants, preceptors, administrators and staff are accessible. (5)	❍	❍	❍	❍	❍	❍
the practice skills labs provide an optimal learning environment. (5.1)	❍	❍	❍	❍	❍	❍
If Please select your current year of the program: 1st or 2nd year Is Selected the compounding labs provide an optimal learning environment. (5.2)	❍	❍	❍	❍	❍	❍
the amount and quality of space for student activities and organizations is sufficient (e.g. Student Lounge, PBL rooms). (6)	❍	❍	❍	❍	❍	❍
I have sufficient access to information technology resources (e.g. pharmacy computer labs). (7)	❍	❍	❍	❍	❍	❍
I have sufficient access to educational resources (e.g., library, electronic databases). (8)	❍	❍	❍	❍	❍	❍
the Faculty creates an environment and culture that promotes professional behaviour and harmonious relationships among students, faculty members, administrators, preceptors and staff. (9)	❍	❍	❍	❍	❍	❍
the Faculty supports participation in professional activities (e.g. PDW) by accommodating scheduling. (10)	❍	❍	❍	❍	❍	❍

Q14 Student Experience (comments)   According to your ratings you STRONGLY DISAGREED with the following statements. Please provide any information about why you selected this rating below:

Q15 Student Experience (comments)   According to your ratings you DISAGREED with the following statements. Please provide any information about why you selected this rating below:

Q7 Overall Impressions   Please indicate how satisfied you are with:

	Very Dissatisfied (1)	Dissatisfied (2)	Somewhat Dissatisfied (3)	Somewhat Satisfied (4)	Satisfied (5)	Very Satisfied (6)
your current year of the program. (1)	❍	❍	❍	❍	❍	❍
the overall program to date. (2)	❍	❍	❍	❍	❍	❍

Q8 Please take the opportunity to provide any additional comments on the following aspects of your experience in your current year of the UofA BSc Pharmacy Program:

Describe the BEST part of your current year of the program. (1)

Describe what SURPRISED you the most about your current year of the program. (2)

Provide any CONSTRUCTIVE FEEDBACK about how the current year of the program can be improved. (3)

Q9 Focus Group Volunteers

Thank you very much for taking the time to complete this survey. As a part of the Faculty's ongoing evaluation process, we are also conducting focus groups with students from each year of the program. These focus groups will run some time in the last week of classes (lunch will be provided). The emphasis will be on courses as well as delving more deeply into some of the topics covered in this survey.   If you are interested in taking part please provide your first name and preferred email address below.

This information will be stripped from previous information collected to maintain your anonymity.

Thank you again for your participation.

First Name (1)
Preferred email address (2)

Focus Group Script

For the present focus group you will be asked to share your thoughts on your experience in your current year of the program. I will ask you to speak about the **general curriculum structure, teaching and assessment in your courses and in Ex Ed, and your general experience.** For each of these four areas I will work through a list of topics. When you go to respond please think about what **you liked the most, what surprised you, and what you'd like to see done differently regarding each topic.**

To start, I'd like to spend a short amount of time talking about your thoughts on the **general curriculum structure.** Please tell me your thoughts about:
1.   course sequencing
2.   scheduling

Now I'd like to ask you about the **teaching and assessment you experienced in your courses**. Please describe anything you'd like to share about:
3.   how content was delivered
4.   the learning activities you experienced
5.   the assessments you experienced

Now I'd like to ask you about the **teaching and assessment in experiential education**. (For 1st years this is Community Service Learning). Please comment on issues related to
6.   course procedures
7.   learning activities
8.   preceptors as teachers
9.   assessment

Finally, we'd like to ask you about some **general experience** topics. Please describe your thoughts on
10.   student services you are provided
11.   educational Support

That completes the focus group, thanks for your time. If you have any closing comments go ahead and speak to them now.

Graduating Students Survey

Q1 Graduating Student Survey

The following survey is designed to collect information about your experiences in the Bachelor of Science in Pharmacy program at the University of Alberta. Your feedback will help to improve and strengthen the program. Any information you provide is confidential and anonymous.   The survey contains 6 sections including a special in-depth section to help assess students' practice skills experiences in the curriculum:
A. Demographics and Career Plans
B. Curriculum, Teaching and Learning
B. Professional Roles And Responsibilities
D. Pharmacy Practice Skills Experiences
E. Student Experience
F. Overall Impressions

The survey takes approximately 20-25 minutes to complete. Thank you for your time.

Q2 Demographics & Career Plans   The following questions are meant to help characterize your graduating class as well as to collect some information about what your plans are upon graduation.

Q3 Please indicate your gender:
❍ Male
❍ Female

Q4 Please indicate your year of birth:
- ○ 2000
- ○ 1999
- ○ 1998
- ○ 1997
- ○ 1996
- ○ 1995
- ○ 1994
- ○ 1993
- ○ 1992
- ○ 1991
- ○ 1990
- ○ 1989
- ○ 1988
- ○ 1987
- ○ 1986
- ○ 1985
- ○ 1984
- ○ 1983
- ○ 1982
- ○ 1981
- ○ 1980
- ○ 1979
- ○ 1978
- ○ 1977
- ○ 1976
- ○ 1975
- ○ 1974
- ○ 1973
- ○ 1972
- ○ 1971
- ○ 1970

○ 1969
○ 1968
○ 1967

Q5 Please indicate any languages you speak fluently other than English (check all that apply):
❑ French
❑ Chinese
❑ Spanish
❑ German
❑ Other: _____
❑ None

Q6 Please indicate where you were living just before coming to the University of Alberta to pursue post secondary education:
- ○ Alberta
- ○ British Columbia
- ○ Saskatchewan
- ○ Manitoba
- ○ Ontario
- ○ Quebec
- ○ Nova Scotia
- ○ New Brunswick
- ○ P.E.I
- ○ Newfoundland and Labrador
- ○ Yukon
- ○ N.W.T
- ○ Nunavut
- ○ Outside of Canada (please specify): _____

Q7 Please indicate if you had any degrees prior to entering the pharmacy program at the University of Alberta:
- ○ Yes
- ○ No

Q8 Please indicate the name of the degree(s) you had upon entry to the University of Alberta Pharmacy program (check all that apply) :
- ❏ Bachelor of Arts
- ❏ Bachelor of Science (please specify area): _____
- ❏ Masters (please specify area): _____
- ❏ Other (please specify): _____

Q11 Please indicate where you are planning to obtain a license to practice pharmacy upon graduation (check all that apply):

❑ Alberta

❑ British Columbia

❑ Saskatchewan

❑ Manitoba

❑ Ontario

❑ Quebec

❑ Nova Scotia

❑ New Brunswick

❑ P.E.I

❑ Newfoundland and Labrador

❑ Yukon

❑ N.W.T

❑ Nunavut

❑ Outside of Canada (please specify): _____

Q12 Please indicate your current employment status:
❍ Employed or have accepted employment in a pharmacy related field
❍ Employed or have accepted employment in a field unrelated to pharmacy
❍ Unemployed but seeking pharmacy related employment
❍ Unemployed and seeking employment in a field unrelated to pharmacy
❍ Other (please specify)

Q13 Please indicate the type of practice setting of your current pharmacy position or the position you have accepted:
❍ Community pharmacy
❍ Hospital pharmacy
❍ Long term care pharmacy
❍ Consultant pharmacy
❍ Ambulatory clinic
❍ Pharmaceutical industry
❍ Other (please specify): _____

Q14 Please indicate your practice setting preference as you look for employment:
❍ Community pharmacy
❍ Hospital pharmacy
❍ Long term care pharmacy
❍ Consultant pharmacy
❍ Ambulatory clinic
❍ Pharmaceutical industry
❍ I do not have a preference
❍ Other (please specify): _____

Q15 Please indicate the type of setting of your current pharmacy position or the position you have accepted:
❍ Rural
❍ Urban

Q16 Please indicate the type of setting you would prefer to find employment in:
❍ Rural
❍ Urban
❍ I do not have a preference

Q17 Please indicate the type of employment you currently have or have accepted:
❑ permanent full time (>32 hours)
❑ temporary full time (>32 hours)
❑ permanent part time (15-32 hours)
❑ temporary part time (15-32 hours)
❑ casual relief pharmacist (less than 15 hours per week)
❑ Other (please describe) _____

Q18 Please indicate the type of employment you are seeking:
❑ permanent full time (>32 hours)
❑ temporary full time (>32 hours)
❑ permanent part time (15-32 hours)
❑ temporary part time (15-32 hours)
❑ casual relief pharmacist (less than 15 hours per week)
❑ I do not have a preference
❑ Other (please describe)

Q19 Please indicate if you are considering furthering your pharmacy or health sciences education.
○ Yes
○ No

Q20 Please indicate which of the following forms of education you are considering to pursue upon graduation (check all that apply).
❑ Pharmacy Residency Program
❑ Graduate Studies in Pharmacy
❑ Graduate Degree in another Program
❑ PharmD at the University of Alberta
❑ PharmD at an institution other than the University of Alberta
❑ Other Health Professions (MD, DDS, DVM, etc.)
❑ Other: _____

Q21 Curriculum, Teaching, and Learning   This section of the survey is designed to collect information about your experiences with the curriculum, teaching and learning over the duration of your degree. Please indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
courses were sequenced and integrated in a way that made sense.	❍	❍	❍	❍	❍	❍
teaching methods (e.g. didactic, problem based, small group, case discussions, skills simulations) were effective at delivering the required knowledge and skills.	❍	❍	❍	❍	❍	❍
teaching and learning activities effectively developed self-directed learning skills where appropriate.	❍	❍	❍	❍	❍	❍
teaching and learning activities effectively developed team work and collaboration skills.	❍	❍	❍	❍	❍	❍
teaching and learning activities fostered ethical responsibility for maintaining professional competence.	❍	❍	❍	❍	❍	❍
teaching and learning activities developed critical thinking and problem solving skills.	❍	❍	❍	❍	❍	❍
teaching and learning activities helped to develop strong oral and written communication skills.	❍	❍	❍	❍	❍	❍
outcomes assessed on assignments and tests aligned with material taught in lectures, seminars and labs.	❍	❍	❍	❍	❍	❍
assessment methods (e.g. multiple-choice tests, assignments, group projects, cases, skills simulations) offered the opportunity to demonstrate the knowledge and skills taught in lectures, seminars and labs.	❍	❍	❍	❍	❍	❍
the amount of feedback I received was sufficient.	❍	❍	❍	❍	❍	❍
when feedback was provided, it was specific and useful.	❍	❍	❍	❍	❍	❍
the schedule and pace provided sufficient time to complete assignments and prepare for exams.	❍	❍	❍	❍	❍	❍
courses afforded sufficient opportunity to practice and develop clinical SCIENCE skills (e.g. pharmacotherapeutics, clinical pharmacokinetics, medication administration, Immunization).	❍	❍	❍	❍	❍	❍
courses afforded sufficient opportunity to practice and develop clinical PRACTICE skills (e.g. patient and professional communication,	❍	❍	❍	❍	❍	❍

compounding, point-of-care testing, dispensing and prescription processing, evidenced based decision making, drug information provision, physical assessment).						
the variety of elective courses offered within the Faculty is sufficient.	❍	❍	❍	❍	❍	❍
tasks during the experiential education courses provided opportunities to contribute meaningfully and productively to patient care.	❍	❍	❍	❍	❍	❍
activities during the experiential education courses provided opportunities to develop clinical skills to assist a variety of patients (e.g., diversity in age, gender, ethnic and/or cultural background, disease states, etc.).	❍	❍	❍	❍	❍	❍
interprofessional learning experiences helped to develop my communication, teamwork and problem solving skills.	❍	❍	❍	❍	❍	❍

Q22 According to your responses, you indicated STRONGLY DISAGREE for the following statements about the curriculum, teaching and learning. Please take this opportunity to provide comments to support your rating in the boxes below:

Q23 According to your responses, you indicated DISAGREE for the following statements about the curriculum, teaching and learning. Please take this opportunity to provide comments to support your rating in the boxes below:

Q24 Professional Roles and Responsibilities   The Bachelor of Science in Pharmacy program is designed to prepare you for a number of roles upon graduation. In each of these roles a specific set of skills are intended to have been developed. This part of the survey collects information about how well you think the program prepared you to be able to perform certain skills.

Q25 Patient Care Provider   Please indicate how strongly you agree or disagree that the CURRICULUM PREPARED YOU TO:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
integrate knowledge (e.g. pharmaceutics, medicinal chemistry, pharmacology, pharmacokinetics, therapeutics) required for the practice of pharmacy	❍	❍	❍	❍	❍	❍
complete a patient assessment (e.g. patient histories, medical records) to identify patient medication-related problems or needs	❍	❍	❍	❍	❍	❍
develop a patient care plan to manage each medication-related problem or need	❍	❍	❍	❍	❍	❍
recommend appropriate drug therapy	❍	❍	❍	❍	❍	❍
adapt a prescription to ensure appropriate medication therapy	❍	❍	❍	❍	❍	❍
extend a prescription to authorize refills of a medication to ensure continuity of care	❍	❍	❍	❍	❍	❍
prescribe a schedule 1 drug, when I have additional prescribing authority	❍	❍	❍	❍	❍	❍
administer a medication by injection	❍	❍	❍	❍	❍	❍
monitor the therapeutic plan for a patient	❍	❍	❍	❍	❍	❍
order laboratory tests	❍	❍	❍	❍	❍	❍
interpret laboratory test results	❍	❍	❍	❍	❍	❍
compound common dosage forms such as powders, creams, ointments and oral solutions, where applicable.	❍	❍	❍	❍	❍	❍
educate and teach regarding medications and appropriate medication use	❍	❍	❍	❍	❍	❍
document patient care activities	❍	❍	❍	❍	❍	❍
refer patients to other healthcare providers when required	❍	❍	❍	❍	❍	❍

Q26 According to your responses you STRONGLY DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q27 According to your responses you DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q28 Collaborator   Please indicate how strongly you agree or disagree that the CURRICULUM PREPARED YOU TO:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
work with other health professionals to identify and resolve problems related to medication use	❍	❍	❍	❍	❍	❍
utilize a team approach to assure appropriate use of health care resources in providing patient care	❍	❍	❍	❍	❍	❍
practice pharmacy in a variety of interprofessional and collaborative settings	❍	❍	❍	❍	❍	❍

Q29 According to your responses you STRONGLY DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q30 According to your responses you DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q31 Patient Advocacy   Please indicate how strongly you agree or disagree that the CURRICULUM PREPARED YOU TO:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
promote wellness and disease prevention services	❍	❍	❍	❍	❍	❍
interpret and apply drug benefit plan policies to help patients access the medications they need	❍	❍	❍	❍	❍	❍
promote the role of pharmacists in the development and implementation of health programs or policies	❍	❍	❍	❍	❍	❍

Q32 According to your responses you STRONGLY DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q33 According to your responses you DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q34 Communicator   Please indicate how strongly you agree or disagree that the CURRICULUM PREPARED YOU TO:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
communicate with patients, patients' agents, and health care providers	❍	❍	❍	❍	❍	❍
communicate in a culturally sensitive way.	❍	❍	❍	❍	❍	❍
respond to an information request from a patient	❍	❍	❍	❍	❍	❍
respond to an information request from a health care professional	❍	❍	❍	❍	❍	❍
prepare effective written communications	❍	❍	❍	❍	❍	❍
deliver oral presentations	❍	❍	❍	❍	❍	❍

Q35 According to your responses you STRONGLY DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q36 According to your responses you DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q37 Manager   Please indicate how strongly you agree or disagree that the CURRICULUM PREPARED YOU TO:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
manage staff under your direct supervision	❍	❍	❍	❍	❍	❍
ensure that pharmacy staff are delegated tasks that are appropriate to their legislation	❍	❍	❍	❍	❍	❍
ensure that pharmacy staff have adequate training to complete their delegated tasks	❍	❍	❍	❍	❍	❍
assess the cost-effectiveness of a clinical service in a patient care setting	❍	❍	❍	❍	❍	❍
identify and implement strategies to minimize medication errors	❍	❍	❍	❍	❍	❍
ensure that medication distribution systems optimize patient outcomes	❍	❍	❍	❍	❍	❍

Q38 According to your responses you STRONGLY DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q39 According to your responses you DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q40 Scholar   Please indicate how strongly you agree or disagree that the CURRICULUM PREPARED YOU TO:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
identify, evaluate and utilize professional information and literature in making patient care decisions	❍	❍	❍	❍	❍	❍
critically review a publication	❍	❍	❍	❍	❍	❍
interpret epidemiologic data relevant to specific diseases and their management	❍	❍	❍	❍	❍	❍
interpret pharmacoeconomic data	❍	❍	❍	❍	❍	❍

Q41 According to your responses you STRONGLY DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q42 According to your responses you DISAGREE that the CURRICULUM PREPARED YOU TO be able perform the following skills. Please take this opportunity to provide comments to support your rating in the boxes below:

Q43 Pharmacy Practice Experiences Based on your personal experiences in the practice skills courses and/or other practice skills activities provided in the curriculum, please indicate how strongly you agree or disagree that THROUGHOUT THE DURATION OF THE PROGRAM:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
sequencing of skills taught in the practice skills courses made sense.	○	○	○	○	○	○
skills taught in the practice skills courses built upon one another to strengthen my overall competency with practice skills.	○	○	○	○	○	○
skills revisited in the practice skills course were taught to acknowledge how expectations change depending on the complexity of the therapeutic and/or practice context.	○	○	○	○	○	○
practice skills course seminars/lectures provided the background information necessary to effectively prepare for lab activities and assessments.	○	○	○	○	○	○
being able to observe my peers during practice skills lab activities and assessments was a valuable learning opportunity.	○	○	○	○	○	○
I had sufficient opportunities for guided practice of skills that were eventually assessed in lab.	○	○	○	○	○	○
feedback provided during lab activities by lab facilitators or TAs helped to improve my understanding of concepts and skills.	○	○	○	○	○	○
course coordinator feedback helped to improve my understanding of concepts and skills.	○	○	○	○	○	○
course coordinator feedback was received in a timely manner.	○	○	○	○	○	○
lab debriefing sessions provided valuable feedback that improved my understanding of concepts and skills.	○	○	○	○	○	○
performance criteria for completing PATIENT ASSESSMENT were stated in clear and specific terms.	○	○	○	○	○	○
performance criteria for completing a PHARMACOTHERAPY WORKUP were stated in clear and specific terms.	○	○	○	○	○	○
performance criteria for demonstrating PATIENT-CENTRED COMMUNICATION were stated in clear and specific terms.	○	○	○	○	○	○
performance criteria for completing DOCUMENTATION were stated in clear and specific terms.	○	○	○	○	○	○

performance criteria for demonstrating EVIDENCED BASED DECISION MAKING were stated in clear and specific terms.	❍	❍	❍	❍	❍	❍
performance criteria for REFLECTION were stated in clear and specific terms.	❍	❍	❍	❍	❍	❍
performance criteria for complete PATIENT ASSESSMENT were applied in a consistent manner.	❍	❍	❍	❍	❍	❍
performance criteria for completing a PHARMACOTHERAPY WORKUP were applied in a consistent manner.	❍	❍	❍	❍	❍	❍
performance criteria for demonstrating PATIENT-CENTRED COMMUNICATION were applied in a consistent manner.	❍	❍	❍	❍	❍	❍
performance criteria for completing DOCUMENTATION were applied in a consistent manner.	❍	❍	❍	❍	❍	❍
performance criteria for demonstrating EVIDENCED BASED DECISION MAKING were applied in a consistent manner.	❍	❍	❍	❍	❍	❍
performance criteria for REFLECTION were applied in a consistent manner.	❍	❍	❍	❍	❍	❍
outcomes assessed in practice skills labs emphasized process over therapeutic knowledge.	❍	❍	❍	❍	❍	❍
outcomes assessed in lab aligned with material taught in lectures/seminar.	❍	❍	❍	❍	❍	❍
where possible, lab activities reinforce important therapeutic concepts taught elsewhere in the curriculum.	❍	❍	❍	❍	❍	❍
lectures, seminars and lab activities enhanced my professional practice skill competence.	❍	❍	❍	❍	❍	❍
the patient care process taught across the practice skills courses is consistent.	❍	❍	❍	❍	❍	❍
my confidence in my ability to perform practice skills increased over the duration of the program.	❍	❍	❍	❍	❍	❍

Q44 Based on your responses you STRONGLY DISAGREE with the following statements about your practice skills experiences. Please take this opportunity to provide comments to support your ratings in the boxes provided below:

Q45 Based on your responses you DISAGREE with the following statements about your practice skills experiences. Please take this opportunity to provide comments to support your ratings in the boxes provided below:

Q46 General Student Experience   Please indicate how strongly you agree or disagree with the following statements about your GENERAL STUDENT EXPERIENCE:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
academic advising made available to me by the Faculty meets my needs as a student.	❍	❍	❍	❍	❍	❍
support provided by students' services meets my needs as a student.	❍	❍	❍	❍	❍	❍
students are afforded sufficient opportunities to voice their opinions and concerns.	❍	❍	❍	❍	❍	❍
the Faculty communicates effectively about news, events and important matters.	❍	❍	❍	❍	❍	❍
faculty, teaching assistants, preceptors, administrators and staff are accessible.	❍	❍	❍	❍	❍	❍
the amount and quality of space for student activities and organizations is sufficient.	❍	❍	❍	❍	❍	❍
I have sufficient access to information technology resources (e.g. computer labs).	❍	❍	❍	❍	❍	❍
I have sufficient access to educational resources (e.g., library, electronic data bases).	❍	❍	❍	❍	❍	❍
the Faculty creates an environment and culture that promotes professional behaviour and harmonious relationships among students, faculty members, administrators, preceptors and staff.	❍	❍	❍	❍	❍	❍
the Faculty supports participation in professional organizations and activities.	❍	❍	❍	❍	❍	❍
guidance for career planning met my needs.	❍	❍	❍	❍	❍	❍
processes for dealing with problems that affected normal participation in the program were clear and easy to use.	❍	❍	❍	❍	❍	❍
admission requirements appropriately select students who are likely to succeed in the program.	❍	❍	❍	❍	❍	❍

Q47 According to your responses you STRONGLY DISAGREE with the following statements about your GENERAL STUDENT EXPERIENCE. Please take this opportunity to provide comments to support your rating in the boxes provided below:

Q48 According to your responses you DISAGREE with the following statements about your GENERAL STUDENT EXPERIENCE. Please take this opportunity to provide comments to support your rating in the boxes provided below:

Q51 Overall Impressions   Using a scale from 1 - 6 where 1 = very dissatisfied and 6 = very satisfied. Please indicate how satisfied you are with:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Satisfied	Very Satisfied
the 4th year of the program.	❍	❍	❍	❍	❍	❍
the overall program.	❍	❍	❍	❍	❍	❍

Q57 According to your responses you are VERY UNSATISFIED OR UNSATISFIED with the 4th YEAR OF THE PROGRAM. Please take this opportunity to provide comments to support your rating in the box provided below:

Q58 According to your responses you are VERY UNSATISFIED OR UNSATISFIED with the OVERALL PROGRAM. Please take this opportunity to provide comments to support your rating in the box provided below:

Q52 Please also indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I am prepared to enter pharmacy practice.	❍	❍	❍	❍	❍	❍
Tuition and fees represented an acceptable value for the quality of education that I received.	❍	❍	❍	❍	❍	❍
If I was starting my university career over again I would pursue a degree in pharmacy.	❍	❍	❍	❍	❍	❍
If I was starting my pharmacy program over again I would choose to attend the Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.	❍	❍	❍	❍	❍	❍
I would recommend the profession of pharmacy to a friend or relative.	❍	❍	❍	❍	❍	❍

Q53 Please take the opportunity to comment on the following aspects of your experience in the UofA BSc Pharmacy Program:

Describe the BEST part of your experience overall.

Describe what SURPRISED you the most about your experience.

Provide any CONSTRUCTIVE FEEDBACK about how the program can be improved.

Q54 Thank you for your time and input. Your feedback will help to improve the program for the students who follow in your footsteps. All the best in the next stage of your career.

Post Course Preceptor Survey

Q1
Welcome to the End of Placement Preceptor Survey. This survey is designed to collect information about your recent experience as preceptor as well as to help us evaluate the UofA Experiential program. Your participation is completely anonymous and confidential. The survey should take 10-15 minutes to complete and you will have an opportunity to provide general comments at the end.   Your responses are greatly appreciated.

Q2 Please select the type of placement you just finished precepting:
❍ Y2 Community
❍ Y3 Acute Care
❍ Y4 Community
❍ Y4 Acute Care
❍ Y4 Selective
❍ Y4 Elective

Q4 Please indicate how long you have been PRECEPTING:
❑ 1-5 years
❑ 6-10 years
❑ 11-15 years
❑ 16-20 years
❑ >20 years

If Acute Care

Q7 Please indicate the approximate number of students from OTHER FACULTIES and PHARMACY RESIDENCY PROGRAMS you have precepted in the last 5 years:

Q8 Pre-placement Communications

Please indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I was notified by the Faculty (or by my site manager) about my student in an effective and timely manner.	○	○	○	○	○	○
Pre-placement communications regarding course information, Netcare access, RxPreceptor and other processes) were clear and easy to follow.	○	○	○	○	○	○

Q9 According to your responses you strongly disagreed or disagreed with some of the statements about pre-placement communications. Please provided comments about why in the spaces provided below.

Statements you Strongly Disagree with:

Statements you Disagree with:

Q11 Training and Resources

Q12   Please indicate which of the following primary resources you accessed to prepare for precepting within the past 2 years (check all that apply):

❑ Patient Care Process Preceptor Module
❑ UBC E-Tips
❑ Preceptor Workshop (AHS or Faculty facilitated)

Q13 Please indicate how useful you found the primary resources you accessed:

Q14 According to your ratings you found the following primary resources "Not at all Useful". Please indicate the reason for your rating below:

Q14.1 In the future, preceptor training using the above resources will become mandatory. If you have not accessed any of the above resources since becoming a UofA preceptor, please do so at your earliest convenience. Your access will be logged in RXPreceptor. (ask rennette add contact number)

Q15 Preceptor Resources

The faculty provides a series of additional resources. Please indicate how strongly you agree or disagree with the following statements about these additional resources. If you did not access the resource, select NA/Did not Access:

	Not Applicable/Did not Access	strongly disagree	disagree	somewhat disagree	somewhat agree	agree	strongly agree
The Preceptor Guide provided helpful information about precepting roles and responsibilities.	❍	❍	❍	❍	❍	❍	❍
The lync/teleconference Course Overview (live session) provided a useful description of the course activities and assignments.	❍	❍	❍	❍	❍	❍	❍
The preceptor information podcast (recorded) provided a useful description of the course activities and assignments.	❍	❍	❍	❍	❍	❍	❍
The preceptor information packages (summaries, checklists) emailed just prior to the placement were was useful.	❍	❍	❍	❍	❍	❍	❍
The preceptor information package described assessment and evaluation processes clearly.	❍	❍	❍	❍	❍	❍	❍
The course syllabus (manual) described course objectives and activities clearly.	❍	❍	❍	❍	❍	❍	❍
I know how to obtain access to the UofA library resources.	❍	❍	❍	❍	❍	❍	❍
Having access to the UofA Library resources was useful.	❍	❍	❍	❍	❍	❍	❍
The newsletter provides useful information.	❍	❍	❍	❍	❍	❍	❍

In general the resources available prepared me to precept.	○	○	○	○	○	○	○

Q16 According your responses you somewhat disagreed, disagreed or strongly disagreed with some statements. If you would like to provide comments on why, please do so in the spaces provided below.

Statements you Strongly Disagree with:

Statements you Disagree with:

Statements you somewhat Disagree with:

Q18 The Student Assessment Tool

As a part of the course you are responsible for using the an on-line student assessment tool to evaluate student performance at the mid-point (305 and 426/8) and the end of the placement.

Please indicate how strongly you agree or disagree with the following statements about the on-line assessment tool:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
The instructions describing how to complete the on-line assessment were clear and easy to follow.	❍	❍	❍	❍	❍	❍
The on-line interface is user-friendly and easy to work through.	❍	❍	❍	❍	❍	❍
Considering behaviours for each outcome helped when making overall evaluations of the outcome.	❍	❍	❍	❍	❍	❍
The overall rating scale (Not Meeting to Exceeds an Acceptable level of Performance) for each outcome made sense and was easy to apply.	❍	❍	❍	❍	❍	❍
The assessments helped me to identify specific areas of strength and/or weakness to provide targeted feedback to my student.	❍	❍	❍	❍	❍	❍
The behaviours listed on the tool represent the types of skills that are developed during the placement.	❍	❍	❍	❍	❍	❍
The assessment was an appropriate length.	❍	❍	❍	❍	❍	❍
I am confident evaluating student performance using the course assessment tools.	❍	❍	❍	❍	❍	❍

Q19 According your responses you disagreed or strongly disagreed with some statements. If you would like to provide comments on why, please do so in the spaces provided below.

Statements you Strongly Disagree with:

Statements you Disagree with:

Q21 Curriculum and Student Learning

Please indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
My student came into the placement with an appropriate level of knowledge and skill to be successful.	○	○	○	○	○	○
The placement was able to build upon and develop the students' knowledge and skills.	○	○	○	○	○	○
The course objectives/activities were appropriate for the student.	○	○	○	○	○	○
I know when I should contact the Faculty about an at-risk student.	○	○	○	○	○	○

Q22 According your responses you somewhat disagreed, disagreed or strongly disagreed with some statements. If you would like to provide comments on why, please do so in the spaces provided below.

Statements you Strongly Disagree with:

Statements you Disagree with:

Statements you Somewhat Disagree with:

Q24 Support and Recognition   Please indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Overall, the Faculty provided adequate support.	○	○	○	○	○	○
I feel recognized for my contributions as a preceptor by the FACULTY.	○	○	○	○	○	○
I feel recognized for my contributions as a preceptor by MY EMPLOYER.	○	○	○	○	○	○
Overall, the Faculty creates a culture that promotes professional behaviour among students, faculty members, administrators, preceptors and staff.	○	○	○	○	○	○

Q25 According your responses you somewhat disagreed, disagreed or strongly disagreed with some statements. If you would like to provide comments on why, please do so in the spaces provided below.

Statements you Strongly Disagree with:

Statements you Disagree with:

Statements you Somewhat Disagree with:

Q27 Please indicate whether you were aware of the ways the Faculty recognizes preceptors (check all that apply):
- ❑ student nominated awards and recognition program
- ❑ faculty newsletter
- ❑ preceptor names on our website with acknowledgement of this in the ACP News
- ❑ individual thank you letters emailed out at the end of the academic year

Q28 Thank you for taking the time to complete this survey. Your responses and feedback will be used to help us improve the Experiential Program going forward. If you have additional comments or concerns about your experiences precepting or the Experiential Education program in general, please provide them below:

Q29 Finally, if you would like to be contacted to discuss any issues or concerns further, please provide the following information. Please note that this information will be kept separate from all other information you have provided to maintain your anonymity.
    First Name:
    Last name:
    Preferred email:
    Preferred phone number (e.g. 780-555-5555):
    Main concern/issue:

Post Course Student Survey (Anonymous)

Q1 Congratulations! You have completed your placements and it is very important for us to hear from you. The following survey is designed to collect feedback about your experience taking the course. The survey takes less than 10 minutes to complete and is confidential and completely anonymous. Your feedback will be used to help us to improve the course.

Q2 Please indicate the course you have just completed:
- ○ Y2 Community
- ○ Y3 Acute Care
- ○ Y4 Community
- ○ Y4 Acute Care
- ○ Y4 Selective
- ○ Y4 Elective

Q3 General Processes

Now that you've experienced the placement, please indicate how strongly you agree or disagree that the:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
the matching process was transparent.	○	○	○	○	○	○
the matching process was clearly explained.	○	○	○	○	○	○
the course syllabus provided all essential information needed to understand course activities and assignments.	○	○	○	○	○	○
the course syllabus was clear and easy to use.	○	○	○	○	○	○
the course coordinator responded to questions and concerns in a timely manner.	○	○	○	○	○	○
the experiential education administrator responded to questions and concerns in a timely manner.	○	○	○	○	○	○
overall, experiential education team were supportive.	○	○	○	○	○	○

Q4 According to your ratings you strongly disagreed or disagreed with some of the statements. Please use the space below to provide the reasons for these ratings:

Statements you Strongly Disagree with:

Statements you Disagree with:

Q6 Learning Experiences

Please indicate how strongly you agree or disagree with the following statements about your learning experiences

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
the placement provided sufficient opportunities to achieve the objectives of the course.	❍	❍	❍	❍	❍	❍
the placement provided sufficient opportunities to develop important clinical practice skills.	❍	❍	❍	❍	❍	❍
the placement provided sufficient opportunities to contribute meaningfully to direct patient care.	❍	❍	❍	❍	❍	❍
the placement provided sufficient opportunities to experience interprofessional collaboration.	❍	❍	❍	❍	❍	❍
the activities in the course were appropriate for this stage of the program.	❍	❍	❍	❍	❍	❍
I entered the placement with the appropriate level of skill to be successful.	❍	❍	❍	❍	❍	❍
the experience was sufficiently challenging.	❍	❍	❍	❍	❍	❍
the placement experience met my learning expectations.	❍	❍	❍	❍	❍	❍
student performance assessments evaluated important skills.	❍	❍	❍	❍	❍	❍

Q7 According to your ratings you strongly disagreed or disagreed with some of the statements. Please use the space below to provide the reasons for these ratings:

Statements you Strongly Disagree with:

Statements you Disagree with:

Q9 Please provide any additional comments or concerns you have about the course and your experience below.

Faculty Survey

Q1 Faculty Survey   The following survey contains questions to assess your experience being a member of the University of Alberta Faculty of Pharmacy and Pharmaceutical Sciences. The survey should take approximately 15 minutes to complete and your responses are completely anonymous and confidential.

Q2 Please the division you are a member of :
- ❍ Practice
- ❍ Science

Q3 PERCEPTIONS ABOUT ADMINISTRATION AND FUNCTIONING   Please indicate how strongly you agree or disagree that you UNDERSTAND THE ROLES AND RESPONSIBILITIES of the following administrative parties:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Dean	❍	❍	❍	❍	❍	❍	❍
Assistant Dean	❍	❍	❍	❍	❍	❍	❍
Chair, Pharmacy Practice	❍	❍	❍	❍	❍	❍	❍
Chair, Pharmaceutical Sciences	❍	❍	❍	❍	❍	❍	❍
Associate Dean, Undergraduate Student Affairs	❍	❍	❍	❍	❍	❍	❍
Associate Dean, Research and Graduate Studies	❍	❍	❍	❍	❍	❍	❍
Associate Dean, Undergraduate Programs	❍	❍	❍	❍	❍	❍	❍
Director, Experiential Education	❍	❍	❍	❍	❍	❍	❍
Director, Assessment	❍	❍	❍	❍	❍	❍	❍
Director, PharmD	❍	❍	❍	❍	❍	❍	❍
Director, Advancement & Alumni Relations	❍	❍	❍	❍	❍	❍	❍

Q4 Please indicate how strongly you agree or disagree that you UNDERSTAND THE ROLES AND RESPONSIBILITIES of the following administrative COMMITTEES:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Faculty Council	○	○	○	○	○	○	○
Leadership Council	○	○	○	○	○	○	○
Curriculum Committee	○	○	○	○	○	○	○
Assessment Committee	○	○	○	○	○	○	○
Post Professional PharmD Committee	○	○	○	○	○	○	○
New Curriculum Development Steering Committee	○	○	○	○	○	○	○
Admissions Committee	○	○	○	○	○	○	○
Appeals Committee	○	○	○	○	○	○	○
FEC	○	○	○	○	○	○	○
Research Day	○	○	○	○	○	○	○
Graduate Admissions Committee	○	○	○	○	○	○	○
Student, Faculty, and Staff Awards and Development Committee	○	○	○	○	○	○	○
International Committee	○	○	○	○	○	○	○

Q5 Please indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Faculty administrators function as a unified team.	❍	❍	❍	❍	❍	❍	❍
The Faculty administration is open to learning about my needs/problems.	❍	❍	❍	❍	❍	❍	❍
Overall, Faculty committees effectively manage curricular development, evaluation, and improvement.	❍	❍	❍	❍	❍	❍	❍
Faculty Council meetings function effectively as a part of the governance of the Faculty.	❍	❍	❍	❍	❍	❍	❍
Faculty Division meetings function effectively as a part of the governance of the Faculty.	❍	❍	❍	❍	❍	❍	❍
The Faculty creates and environment and culture that promotes professional behaviour among students, Faculty, administrators, preceptors, and staff.	❍	❍	❍	❍	❍	❍	❍
The Faculty effectively manages ACADEMIC misconduct by students. (e.g. plagiarism)	❍	❍	❍	❍	❍	❍	❍
The Faculty effectively manages PROFESSIONAL misconduct by students. (e.g. repeated tardiness/absences)	❍	❍	❍	❍	❍	❍	❍

Q6 PERCEPTIONS ABOUT PERFORMANCE AND TENURE   Please indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Annual performance assessment criteria are explicit and clear.	❍	❍	❍	❍	❍	❍	❍
Criteria for my performance assessment are commensurate with my responsibilities.	❍	❍	❍	❍	❍	❍	❍
The Faculty apply policies and procedures for promotion and/or tenure in a consistent manner.	❍	❍	❍	❍	❍	❍	❍

Q7 PERCEPTIONS ABOUT INFRASTRUCTURE AND SUPPORT   Please indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I receive adequate support staff resources.	❍	❍	❍	❍	❍	❍	❍
My office space is adequate.	❍	❍	❍	❍	❍	❍	❍
Laboratory resources for my research are adequate.	❍	❍	❍	❍	❍	❍	❍
Clinical resources for my research are adequate.	❍	❍	❍	❍	❍	❍	❍
Library resources meet my research needs.	❍	❍	❍	❍	❍	❍	❍
Educational resources meet my educational needs.	❍	❍	❍	❍	❍	❍	❍
Computer resources are adequate for my academic responsibilities.	❍	❍	❍	❍	❍	❍	❍
Resources for supporting the use of technology in education are adequate.	❍	❍	❍	❍	❍	❍	❍
Overall, the Faculty has adequate physical facilities to support my academic responsibilities.	❍	❍	❍	❍	❍	❍	❍
The Faculty has a sufficient number of qualified full time Faculty to effectively deliver the curriculum.	❍	❍	❍	❍	❍	❍	❍
Overall, the Faculty has sufficient resources to accommodate present student enrolment.	❍	❍	❍	❍	❍	❍	❍
Faculty structures foster collaboration.	❍	❍	❍	❍	❍	❍	❍

Q8 PERCEPTIONS ABOUT STRATEGIC PLAN   Please indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I am familiar with the main components of the Faculty's strategic plan.	○	○	○	○	○	○	○
I understand how the Faculty is acting to implement the strategic plan.	○	○	○	○	○	○	○
I am able to contribute to the implementation of the strategic plan.	○	○	○	○	○	○	○
Overall, the Faculty is effectively implementing the strategic plan.	○	○	○	○	○	○	○

Q9 PERCEPTIONS CURRICULUM, TEACHING, AND LEARNING   Please indicate how strongly you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The curriculum is structured to effectively encourage students to assume responsibility for their own learning.	○	○	○	○	○	○	○
I understand how the curriculum is structured and organized.	○	○	○	○	○	○	○
I understand where my course(s) fit(s) into the curriculum.	○	○	○	○	○	○	○
The curriculum effectively develops foundational pharmaceutical sciences knowledge and skills.	○	○	○	○	○	○	○
The curriculum effectively develops foundational pharmacy practice knowledge and skills.	○	○	○	○	○	○	○
The curriculum is structured to encourage cross course collaboration among pharmaceutical sciences and pharmacy practice Faculty.	○	○	○	○	○	○	○
Laboratory and simulated practice environments effectively create environments that help to develop strong clinical practice skills.	○	○	○	○	○	○	○
The Faculty uses student performance data effectively to improve the curriculum and its delivery.	○	○	○	○	○	○	○
I am confident in my ability to create assessments to measure student learning and achievement reliably.	○	○	○	○	○	○	○

Q10 The Bachelor of Science in Pharmacy program is designed to prepare students for a number of roles upon graduation. In each of these roles a specific set of skills are intended to have been developed. This part of the survey collects information about how well you think the program prepared students to be able to perform certain skills.

Q11 Patient Care Provider Please indicate how strongly you agree or disagree that the curriculum prepares students to:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
integrate knowledge required for the practice of pharmacy (e.g. pharmaceutics, medicinal chemistry, pharmacology, pharmacokinetics, therapeutics)	○	○	○	○	○	○	○
complete a patient assessment to gather specific information (e.g. patient histories, medical records) to identify patient medication-related problems or needs	○	○	○	○	○	○	○
develop a patient care plan to manage each medication-related problem or need	○	○	○	○	○	○	○
recommend appropriate drug therapy	○	○	○	○	○	○	○
adapt a prescription to ensure appropriate medication therapy	○	○	○	○	○	○	○
extend a prescription to authorize refills of a medication to ensure continuity of care	○	○	○	○	○	○	○
prescribe a schedule 1 drug, when I have additional prescribing authority	○	○	○	○	○	○	○
administer a medication by injection	○	○	○	○	○	○	○
monitor the therapeutic plan for a patient	○	○	○	○	○	○	○
order laboratory tests	○	○	○	○	○	○	○
interpret laboratory test results	○	○	○	○	○	○	○
educate and teach regarding medications and appropriate medication use	○	○	○	○	○	○	○
document patient care activities	○	○	○	○	○	○	○
refer patients to other healthcare providers when required	○	○	○	○	○	○	○

Q12 Collaborator Pease indicate how strongly you agree or disagree that the curriculum prepares students to:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
work with other health professionals to identify and resolve problems related to medication use	○	○	○	○	○	○	○
utilize a team approach to assure appropriate use of health care resources in providing patient care	○	○	○	○	○	○	○
practice pharmacy in a variety of interprofessional and collaborative settings	○	○	○	○	○	○	○

Q13 Patient Advocacy   Please indicate how strongly you agree or disagree that the curriculum prepares students to:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
promote wellness and disease prevention services	○	○	○	○	○	○	○
interpret and apply drug benefit plan policies to help patients access the medications they need	○	○	○	○	○	○	○
promote the role of pharmacists in the development and implementation of health programs or policies	○	○	○	○	○	○	○

Q14 Communicator   Please indicate how strongly you agree or disagree that the curriculum prepares students to:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
communicate with patients, patients' agents, and health care providers	○	○	○	○	○	○	○
respond to an information request from a patient	○	○	○	○	○	○	○
respond to an information request from a health care professional	○	○	○	○	○	○	○
prepare effective written communications	○	○	○	○	○	○	○
deliver oral presentations	○	○	○	○	○	○	○

Q15 MANAGER   Pease indicate how strongly you agree or disagree that the curriculum prepares students to:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
manage staff under your direct supervision	○	○	○	○	○	○	○
ensure that pharmacy staff are delegated tasks that are appropriate to their legislation	○	○	○	○	○	○	○
ensure that pharmacy staff have adequate training to complete their delegated tasks	○	○	○	○	○	○	○
assess the cost-effectiveness of a clinical service in a patient care setting	○	○	○	○	○	○	○
identify and implement strategies to minimize medication errors	○	○	○	○	○	○	○
ensure that medication distribution systems optimize patient outcomes	○	○	○	○	○	○	○

Q16 Scholar   Please indicate how strongly you agree or disagree that the curriculum prepares students to:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
identify, evaluate and utilize professional information and literature in making patient care decisions	○	○	○	○	○	○	○
critically review a publication	○	○	○	○	○	○	○
interpret epidemiologic data relevant to specific diseases and their management	○	○	○	○	○	○	○
interpret pharmacoeconomic data	○	○	○	○	○	○	○

Q17 PERCEPTIONS ABOUT ACADEMIC ROLES   Please indicate how strongly you agree or disagree that it is a part of your role to:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
develop professionalism in students.	○	○	○	○	○	○	○
mentor students.	○	○	○	○	○	○	○
foster student leadership.	○	○	○	○	○	○	○

Q18 Please indicate how strongly you agree or disagree that the expected PROPORTION OF YOUR TIME DEDICATED TO THE FOLLOWING ROLES IS APPROPRIATE:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Teaching	○	○	○	○	○	○	○
Research	○	○	○	○	○	○	○
Service	○	○	○	○	○	○	○
Clinical Practice	○	○	○	○	○	○	○

Q19 OVERALL IMPRESSION   Please indicate your current overall satisfaction with your job:
- ❍ Very Dissatisfied
- ❍ Dissatisfied
- ❍ Somewhat Dissatisfied
- ❍ Neutral
- ❍ Somewhat Satisfied
- ❍ Satisfied
- ❍ Very Satisfied

Q20 Please take this opportunity to write any additional comments you have about your experience being a member of the University of Alberta Faculty of Pharmacy and Pharmaceutical Sciences below:

Q21 That completes the survey. Thank you for your time.

Appendix L – Selected Teaching and Learning Publications (2010-2015)

Banh, H. L. (2012). Alberta pharmacy students administer vaccinations in the university annual influenza campaign. *Canadian Pharmacists Journal, 145*(3), 112-114.e1.

Charrois, T. L., & Appleton, M. (2013). Online debates to enhance critical thinking in pharmacotherapy. *American Journal of Pharmaceutical Education, 77*(8)

Charrois, T.L., Rosenthal, M., Hoti, K., Hughes, C. (2013). Pharmacy Student Perceptions of Pharmacist Prescribing: A Comparison Study. *Pharmacy 1*, 237-247.

Cheung, W., Tam, K., Cheung, P., & Banh, H. L. (2013). Satisfaction with student pharmacists administering vaccinations in the university of Alberta annual influenza campaign. *Canadian Pharmacists Journal, 146*(4), 227-232.

Cor, M. K., & Peeters, M. J. (2015). Using generalizability theory for reliable learning assessments in pharmacy education. *Currents in Pharmacy Teaching and Learning, 7*(3), 332-341.

Cox, C. E., & Lindblad, A. J. (2012). A collaborative approach to improving and expanding an experiential education program. *American Journal of Pharmaceutical Education, 76*(3).

Guirguis, L. (2011). Improvisation games in a pharmacy communications course: "It was kind of interesting to get to step out of my science-orientated mind and get to be creative!" *Pharmacy Education, 11*(1), 201-204.

Guirguis, L., & Sidhu, K. (2011). An exploration of pharmacist preceptors' and pharmacy students' experiences at an interprofessional student-run clinic. *Canadian Pharmacists Journal, 144*(4), 179-184.

Hall, K., Musing, E., Miller, D. A., & Tisdale, J. E. (2012). Experiential training for pharmacy students: Time for a new approach. *Canadian Journal of Hospital Pharmacy, 65*(4), 285-293.

Kehrer, J. P., Schindel, T. J., & Mann, H. J. (2010). Cooperation in pharmacy education in Canada and the United States. *American Journal of Pharmaceutical Education, 74*(8).

Lam, A., R. Molnar, T. Vu, C. A. Sadowski, & C. A. Jones. (2009). Online continuing education module for community pharmacists: Assisting clients with ambulatory devices. *Currents in Pharmacy Teaching and Learning 1*(2), 87-92.

Lindblad, A. J., Howorko, J. M., Cashin, R. P., Ehlers, C. J., & Cox, C. E. (2011). Development and evaluation of a student pharmacist clinical teaching unit utilizing peer-assisted learning. *Canadian Journal of Hospital Pharmacy, 64*(6), 446-450.

Lopatka, H., Hickson, C., & Legaarden, T. (2011). University of alberta undergraduate student and alumni pharmacist mentorship pilot project. *Canadian Pharmacists Journal, 144*(1), 26-33.

Peeters, M. J., Kelly, C. P., & Cor, M. K. (2015). Summative evaluations when using an objective structured teaching exercise. *American Journal of Pharmaceutical Education, 79*(4).

Sadowski, C. A., Shultz, L., Cox, C., Gukert, M. (2015). Teaching citizenship in an international pharmacy practice course. *Citizenship Teaching and Learning, 10*(2), 157-172.

Sahnan, A., & Simpson, S. H. (2015). Effect of an experiential exercise in diabetes management on pharmacy students' fear and perceived pain of injection and fingertip lancing. *American Journal of Pharmaceutical Education, 79*(1), 1-5.

Schindel, T.J., Hughes, C.A., Sadowski, C.A. (2013). Blended Learning: Reflections on Teaching Experiences across the Pharmacy Education Continuum. *Pharmacy 1*, 137-152.

Schindel, T. J., Kehrer, J. P., Yuksel, N., & Hughes, C. A. (2012). University-based continuing education for pharmacists. *American Journal of Pharmaceutical Education, 76*(2), 1-7.

Trinacty, M., Farrell, B., Schindel, T. J., Sunstrum, L., Dolovich, L., Kennie, N., . . . Waite, N. (2014). Learning and networking: Utilization of a primary care listserv by pharmacists. *Canadian Journal of Hospital Pharmacy, 67*(5), 343-352.

Yuksel, N. (2011). Pharmacy course on women's and men's health. *American Journal of Pharmaceutical Education, 75*(6).

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Appendix M- Consultations within University of Alberta

2011

Oct 21:   Allen Berger, Augustana, pre-pharmacy

2012

Jan 20:   Town hall with student pharmacists
July 10: Bobbi Schiestel, Provost's Office, timelines, templates, approval process
July 26: Edith Finczak, Provost's Office, credits/term
July 31: Bill Connor, Colleen Skidmore, Bobbi Schiestel, Provost's Office, approval process
Sept 18: Town hall with student pharmacists

2013

Mar 25:   Town hall with student pharmacists
June 13: Marc de Montigny, Campus Saint-Jean, Pre-pharmacy

2014

Jan 17:   Randy Wimmer, Education, curriculum framework development process
Feb 13:   Marc de Montigny, Campus Saint-Jean, Pre-pharmacy
Feb 19:   Bill Connor, Kathleen Brough, Provost's Office, data required for proposal, proposal
          requirements, include Bridging Program
Mar 7:   Town hall with student pharmacists
Apr 8:   Kathleen Brough, Provost's Office, planning for degree proposal
Apr 23:   Tracey Hillier, Medicine and Dentistry, research in undergraduate programs
Apr 25:   Yvette d'Entremont, Campus Saint-Jean, Pre-pharmacy letter of support
May 6:   Olive Yonge, Bill Connor, Kathleen Brough, Provost's Office, proposal requirements,
          submission target date, government consultation
Aug 19:   Kathleen Brough, Provost's Office, submission dates for approval process
Sept 11: Brenda Leskiw, Kathleen Brough, Provost's Office, Government consultation
Oct 9:   Brenda Leskiw, Provost's Office, pre-pharmacy, anatomy/physiology proposed course as pre-
          pharmacy or within the program
Oct 14:   Town hall with student pharmacists
Nov 4:   Marc de Montigny, Campus Saint-Jean, Pre-pharmacy
Nov 7:   Kathleen Brough, Provost's Office, Government consultation
Nov 26:   Brenda Leskiw, Provost's Office, pre-pharmacy, pre-pharmacy, microbiology and
          English/writing
Dec 10:   Ada Ness, Registrar's Office, calendar requirements for proposal

2015

Jan 12:   Brenda Leskiw, Provost's Office, pre-pharmacy, proposal requirements
Jan 19:   Town hall with student pharmacists
Jan 22:   Pierre Mocquais, Yvette d'Entremont, Denis Fontaine, and Marc de Montigny, Campus Saint-
          Jean, Pre-pharmacy (add French), bilingual program
Jan 23:   Kathleen Brough, Provost's Office, Proposal requirements
Mar 18:   Sharla King, HSERC, met with Curriculum Committee re: IntD 410 in year 1
Apr 9:   Ada Ness, Registrar's Office, credits/term, PharmD for BSc in Pharmacy Students
Apr 14:   Jan Selman, CSL Director, CSL course in year 1
Apr 20:   Sharla King, JoAnne Davies, HSERC, Interprofessional learning, IntD 410 in year 1

Apr 28:   Kate Peters, Provost's Office, proposal requirements, PharmD for BSc in Pharmacy Students
Apr 29:   Brett Buchannan, Registrar's Office, Course numbers
May 8:   Ada Ness, Registrar's Office, PharmD for BSc in Pharmacy Students
May 21:   Brett Buchannan, Registrar's Office, PHARM 316 accreditation requirements, PharmD for BSc in Pharmacy Students
May 25:   Anna Vocioni, Claire Burke, Registrar's Office, proposed Calendar Copy
June 1:   Joan White, MBA, correspondence regarding proposal, proposed Calendar Copy
June 3:   Kate Peters, Brenda Leskiw, Provost's Office, Approval process, proposed Calendar Copy
June 3:   Tom Hidson, Sarah Miens (feedback from Iris Poon, Angelene Lavers, Catherine Burlet, Corrine Calihoo, and Lihong Yang), Registrar's Office, proposed Calendar Copy
June 4:   Kate Peters, Brenda Leskiw, Provost's Office, proposed Calendar Copy for Programs of Study
June 9:   Karsten Mundel, Augustana, pre-pharmacy
June 11: Kate Peters, Provost's Office, budget
June 23: Yvette d'Entremont,and Marc de Montigny, Campus Saint-Jean, Pre-pharmacy, bilingual program
June 24: Edith Finczak, budget
Aug 18:   Nat Kav, Kate Peters, Edith Finczak, budget, proposal, governance dates
Aug 19:   Deborah Williams, FLE calculation

The Canadian Council for Accreditation of Pharmacy Programs

ACCREDITATION STANDARDS
for the
FIRST PROFESSIONAL DEGREE
IN PHARMACY PROGRAMS

Effective January 2013
Revised July 2014

The Canadian Council for Accreditation of Pharmacy Programs
Le Conseil canadien de l'agrément des programmes de pharmacie

PREFACE

Accreditation is the public recognition accorded to a professional program that meets established professional qualifications and educational standards through initial and periodic evaluation. Accreditation concerns itself with both quality assurance and program enhancement. It applies to programs and is to be distinguished from certification or licensure, which applies to individuals.

The mission of the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) is to evaluate the quality of pharmacy professional degree programs in Canadian universities and pharmacy technician programs to promote continued improvement of such programs.

These Accreditation Standards reflect those professional and educational attributes identified by the Council as essential for programs intending to develop practicing clinical patient-focused pharmacists. They are not appropriate for programs that are focused on the development of pharmacists intended for careers in industry or for degrees focused on pharmaceutical sciences. The Standards address both Baccalaureate in Pharmacy degree programs and Doctorate of Pharmacy programs. It is expected that these will serve during a transition period as programs adjust their curricula.

The Standards embrace the philosophy that program graduates should have acquired general and special knowledge - general to avoid the constraints of too narrow a perspective, and special to provide a basis for critical professional evaluations. The Standards recognize that a quality pharmacy education is dependent on a variety of components, including general knowledge, basic and professional sciences, and professional practice experience. The goals and objectives of the pharmacy curriculum should embrace the scope of contemporary practice responsibilities as well as emerging roles that ensure the rational and safe use of drugs in the individualized care of patients. The Council therefore, believes in the preparation of competent graduates who have the ability to be medication-therapy experts and, together with other health care providers, can contribute to the making of decisions to ensure that services are effective and that the community is involved in improving the health of its residents. Consequently, pharmacists must have a broad understanding of health, the factors that contribute to a healthy community, and the structure and role of the health system. As well, they must have the ability to manage and evaluate information and the skills needed to advocate on behalf of individuals and the community.

Pharmacists must be able to work with people of different cultures who have different values, beliefs, and customs. They must be able to become trusted and respected members of the communities in which they work, develop skills in judgment and public relations, and provide support to students and new health providers. They must practice with compassion,

empathy and integrity and they must be able to work in intra and interprofessional teams and be adaptable enough to work in a variety of settings. It is the Council's view that the educational outcomes established for a professional degree program in pharmacy should encompass the entrance-to-practice competencies specified by the appropriate licensing authority. A Faculty of Pharmacy or a regulatory authority may establish additional educational outcomes. However, the public and students are entitled to demand that the graduates of a professional degree program can demonstrate they have mastered the entrance-to-practice competencies. Since licensing of pharmacists by the provincial regulatory authority relies on the educational outcomes of graduates, it is important for the Faculty and provincial regulatory authority to have a close working relationship. These Standards are designed to reflect the educational philosophy and intent of the "Mission Statement for Pharmacy Education in Canada" of the Association of Faculties of Pharmacy of Canada (AFPC) and the "Educational Outcomes for First Degree Professional Degree Programs in Pharmacy (Entry-to-Practice Pharmacy Programs) in Canada" established by that body. Both these documents are considered an integral part of these Standards.

Glossary:

Course or courses – may also mean modules, phases, blocks of material or other organization of learning

Dean – refers to Dean or Director

faculty – academic staff who are part of a "Faculty"

Faculty – academic unit such as a Faculty, College or School

Interprofessional – refers to both intraprofessional and interprofessional

Weeks related to practice experiences – full time of approximately 40 hours per week

PLEASE NOTE — the information in italics is provided for consideration during the development of your comprehensive self-study document.

When a Faculty of Pharmacy is to be evaluated for purposes of accreditation the process begins with an in-depth analysis of its strengths and weaknesses. The comprehensive internal review involves the collation and review of information on faculty and student achievements and educational outcomes which demonstrate the program's success in attaining its objectives. The comprehensive internal review, therefore, encompasses judgments based on observed performances as well as more precise, quantitative measurements. The comprehensive internal review should provide program description and analysis, present findings and conclusions, appraise strengths and weaknesses and, where deficiencies exist, outline steps necessary for improvement.

As well as being a component of the accreditation process, comprehensive internal review findings serve as catalysts for improvement and provide the framework for strategic planning.

ORGANIZING FOR THE COMPREHENSIVE INTERNAL REVIEW
Your Application should be sent to the CCAPP office <u>at least six months prior to the site visit.</u>

It is recommended that the comprehensive internal review process be initiated at least 6 to 8 months prior to the dates scheduled for the site visit evaluation. The comprehensive internal review documents should be completed in sufficient time to permit distribution to evaluation team members at least TWO MONTHS prior to the dates for the site visit evaluation.

A special committee should be convened to develop and implement the comprehensive internal review process. The committee should be broadly-based to include administrative officers of the Faculty, faculty members, students, the profession and alumni (i.e. it is important to get by-in and solicit feedback from many stakeholders). It is recommended that an individual other than the Dean of the Faculty serve as chair of the comprehensive internal review committee. Wherever possible, the committee should have an appropriate staff person assigned to process and collate the information required by the various subgroups working on specific parts of the assessment.

COMPREHENSIVE INTERNAL REVIEW REPORT
Generally, in the comprehensive internal review report and for each standard, facts and findings (ideally presented in table format) should be analyzed to determine strengths and areas of improvement. It is recommended that an average page limit of 3-4 pages per standard be used. Appropriate referencing to supportive information (data, procedures and policy) should be provided with the text, and the supporting documents attached as appendices.

EVALUATING A FACULTY
Certain Standards are considered "critical Standards" and are identified by the number "3" in the 'Accreditation Standards for the First Professional Degree in Pharmacy Programs'. These Standards are considered to be critical in the determination of an accreditation decision. They carry a weighting of 3 points. Other standards carry a lesser weighting of 2 or 1. A score is calculated and the "CCAPP Accreditation Decision Tree" (Appendix 1) is then utilized. The Decision Tree identifies the length of the accreditation decision as well as an outline of procedures that are followed for each accreditation decision.

You may be asked, at a later date, for further information if the external report indicates there are standards for which you may not be in compliance. A specific plan of action, along with a stated timetable, may also be requested at that time to assure compliance with the CCAPP Standards.

While a Faculty may wish to informally judge its compliance (i.e. 'met', 'not met', 'partially met') with CCAPP standards during its internal review process, the final documents submitted to CCAPP site visit evaluation team members ¬should not include the Faculty's opinion of its compliance with the Standards.

I: Institution Setting and Governance

A: University Structure and Commitment

In this section it is important to include an evaluation of the effectiveness and enumerate the strengths and weaknesses of the existing administrative organization in terms of function and performance.

> **Standard 1: The Faculty must be located in a University within an academic health sciences network or establish a close relationship with such a network of health care facilities that have an academic mission towards research and other scholarly activities.**
>
> **3**

Criterion 1.1: At a minimum the other health sciences programs must include Medicine and Nursing. If the University does not have these programs, the Faculty must establish a formal alliance at another university within close proximity.

Criterion 1.2: The University must demonstrate a commitment to research and other scholarly activities through appropriate infrastructure.

Examples of Evidence:
- Description of the commitment to research and other scholarly activity by the University and by the Faculty to the faculty members.
- Graduate programs
- Opportunities for student involvement in research.
- Research funding over the past 5 years.

> **Standard 2: The Faculty must have University support for affiliations, collaborations, and partnerships (internal and external to the University) necessary to advance the education, research, clinical practices, and service missions of the Faculty.**
>
> **2**

Criterion 2.1: Relationships with partners: The University must support the development of suitable relationships between the Faculty and other academic and service units of the University and health care facilities for instruction, research and patient care.

Criterion 2.2: Policies: Relationships, collaborations and partnerships required, supported or encouraged by the University must be informed by policies, formal and informal agreements or affiliations that fully describe the terms and conditions expected or imposed on the Faculty, its faculty and staff, and students and on the internal or external organizations, agencies, bodies, or facilities.

Criterion 2.3: Conflict of Interest: Policies and Procedures to address potential conflicts of interest, and professional conduct and ethics, must be in place.

Examples of Evidence:
- Description of the Faculty's relationship to the University official holding final responsibility for the academic mission of the University.
- University structure and how this supports the relationships with health sciences coordinating bodies and councils.
- Description of relationships with health care facilities.
- Evidence of interprofessional collaboration and education.
- Conflict of interest policies, disclosure policies, development policies, policies regarding acceptance of gifts and benefits by individual faculty, staff and students.
- Availability of University-affiliated health care teaching facilities to the professional program in Pharmacy.
- Existence of formal agreements signed by authorized representatives to codify the nature and intent of the relationship, collaboration, or partnership;

Standard 3: The University has integrated and endorsed the concept of interprofessional education and collaboration in practice. **2**

Criterion 3.1: The University must demonstrate an awareness and understanding of interprofessional education for interprofessional collaboration.

Criterion 3.2: The University must enable relationships that support interprofessional learning.

Criterion 3.3: Organizational structures and processes must be in place to support interprofessional education.

Criterion 3.4: Interprofessional education must be recognized as a valuable teaching strategy for inter-program collaboration.

Examples of Evidence:
- Communications strategies are in place to facilitate awareness and understanding of interprofessional education for interprofessional collaboration
- Evidence is present of an institutional structure to support strategic planning and delivery of interprofessional education
- Evidence of resources allocated to support interprofessional aspects of education is available

- Dedicated time, space and funding are available for interprofessional education through, for example, an office or faculty member dedicated to interprofessional education
- Evidence that collaboration among student groups, possibly a chapter of the National Health Sciences Students Association, is supported and encouraged

B. Faculty Organization and Leadership

If the Faculty is departmentalized, divisionalized or has informal groupings, each subunit should have its own goals and objectives. It is important to describe how these integrate with the goals and objectives of the Faculty. Be sure to evaluate the effectiveness of the existing administrative organization in terms of function and performance.

> **Standard 4: The Faculty must have a vision and mission aligned with that of the University in education, practice, research and other scholarly activities.**
>
> **1**

Examples of Evidence:
- Documentation of the alignment of the vision and mission of the University with that of the Faculty.
- Documented support of the Faculty by senior university administration.

> **Standard 5: The professional degree in pharmacy program must be housed in a unit that is equivalent to a Faculty, College, or School and be headed by a Dean or Director. It is expected that the unit's degree of autonomy is the same as other faculties or schools at the University**
>
> **3**

Examples of Evidence:
- Reporting policies
- Process for curricular design and approval
- Procedure for faculty appointments

> **Standard 6: The Faculty must be organized in a manner that facilitates the accomplishment of its mission and progress towards its vision.**
>
> **2**

Examples of Evidence:
- Faculty organizational and administrative structure with lines of authority and responsibility
- Defined governance structure, developed through faculty consensus in accordance with University regulations

- Position descriptions
- Committee structure and responsibilities
- Evaluation procedures and data for the effectiveness of the structure

Standard 7: The Faculty must engage with federal/provincial/territorial (FPT) regulatory authorities and other professional bodies, with respect to practice requirements, practice standards and health human resource planning. This relationship should facilitate meeting professional, educational and societal needs. **2**

Examples of Evidence:
- Documentation of interactions with the regulatory authorities and other professional bodies
- Faculty participation in the activities of the regulatory authority
- Regulatory authority participation in Faculty activity
- Joint activities
- University support for these initiatives

Standard 8: The Dean must be an individual who has the educational background, professional qualifications and relevant experience to lead the professional program, research and scholarly mission and practice activities of the Faculty of Pharmacy. **2**

Examples of Evidence:
- Curriculum vitae and job description of the Dean
- Criteria for appointment and review of the Dean

C. Strategic Planning and Evaluation

It is important in this section to address the process used by the Faculty to assess how well the mission, goals and objectives of the Faculty are being achieved.

The Faculty's Strategic Plan should be a free-standing, self-contained document. It should be provided as a separate document and not included as part of this section of the comprehensive internal review.

Standard 9: The Faculty must engage in a broadly-based, systematic planning process and have a current strategic plan that facilitates achievement of the Faculty's mission, goals and objectives. Plans and planning processes must have the support and cooperation of the University administration.

3

Criterion 9.1: The planning process must occur regularly and provide for broadly-based input from faculty, students, practitioners, FPT regulatory authorities, alumni, and other key stakeholders or constituent groups. The process should consider financial, programmatic and academic planning within the context of professional changes occurring and anticipated.

Criterion 9.2: There must be evidence that the Faculty's strategic plan is current and has the support of senior University administration.

Examples of Evidence:
- Copy of the Faculty's strategic plan
- The strategic planning procedures used by the Faculty, including the participants and their affiliations
- Discussion on how the plan addresses the context of professional changes and documentation provided by professional pharmacy organizations
- Description of integration with the University plan
- Examples of senior administration support

Standard 10: The Faculty must establish and maintain systems that measure and evaluate the extent to which its mission, goals and objectives are being achieved, and provide information to support planning and decision-making in the Faculty.

2

Examples of Evidence:
- Indicators used to measure performance or achievement in a program or activity
- The expected standard of performance or achievement
- The tools or sources for data used or collected to measure the indicator
- The frequency of data collection
- Description of the process to analyze the data and determine deviations from expected performance
- Examples of decisions made in response to data that was gathered
- Communications processes to inform faculty, students, preceptors, the profession and other interested parties of Faculty performance or achievements

> **Standard 11:** Support for interprofessional education and interprofessional practice must be embedded in Faculty documentation such as policies and strategic directions.

2

Examples of Evidence:
- The mission of the Faculty signals its commitment to graduate collaborative practitioners
- Interprofessional education experiences are embedded in the curriculum
- The Faculty's strategic plan contains a goal for interprofessional teaching and learning

II: Resources

It is important to provide an assessment of the resources in relation to organizational structure, faculty, staff, student body, and academic programs offered by the faculty.

A. Faculty and Staff

> **Standard 12:** The Faculty must have sufficient human resources, including appropriately qualified faculty, support and administrative staff, to effectively deliver and evaluate the professional program.

3

Criterion 12.1: Within each discipline and curricular area there must be an appropriate mix, depth and balance of faculty members with appropriate academic titles and experience. The full-time faculty may be complemented by part-time, cross-appointed or jointly-funded faculty, as well as preceptors and voluntary faculty with adjunct status or other appropriate academic titles.

Examples of Evidence:
- Inventory of faculty
- Curriculum vitae including documentation of professional credentials and expertise related to their area of program delivery
- Workload reports that reflect teaching, research and administrative responsibilities
- Composition of the Faculty as it relates to the relevant disciplines within the biomedical, pharmaceutical, social/behavioural/administrative, and clinical sciences to meet the education and research needs as defined by the mission statement
- Involvement in provision of direct patient care and professional services to patients by the professional practice faculty members
- Involvement of faculty in generating and disseminating knowledge through scholarship

Criterion 12.2: There must be adequate and appropriately skilled staff resources, such as administrative assistants, secretaries, student services personnel, teaching assistants, laboratory instructors, and information and communication technology personnel.

Examples of Evidence:
- Number and skills of administrative, secretarial and technical personnel
- Position descriptions
- Organizational charts
- Description of the types of available services at the Faculty and those provided centrally at the University

Criterion 12.3: Faculty members must be evaluated in accordance with University policies, using multiple sources of information, with reference to clearly outlined criteria.

Examples of Evidence:
- Written policies and procedures for faculty evaluation.
- University policies related to the process of performance review in the areas of teaching, research and service

Criterion 12.4: There must be evidence of University support for professional development opportunities for faculty and staff, consistent with their respective responsibilities and their enhancement of teaching and assessment of students.

B. Financial Resources

Standard 13: The Faculty must have adequate financial resources so that continuing operation of the professional programs and other elements of the Faculty mission are fulfilled.

3

Examples of Evidence:
- Description of the procedures used in determining the program budget
- Current program budget including details of revenues and expenditures
- Description of the procedures for assessing the adequacy of financial resources for faculty and staff salaries, materials and equipment, faculty development, curricular development, program facilities, and the facilitation of scholarly activities of the faculty and outcomes of these procedures
- Support for the programs goals and needs
- Support for the continuing operation of the program at an appropriate level
- Significant changes in the budget over the past five years
- Current and future human resource pharmacy workforce planning needs
- Admission class size
- Operating grant per student

- Comparative per student funding for the other health profession programs at the University and benchmark data from other pharmacy Faculties in Canada
- Availability of, and support to, clinical teaching placement sites sufficient for all components of the academic program
- Description of how the financial resources to deliver the professional program are informed by collaborative government, University and Faculty consultation

Standard 14: The Faculty, with the support of the University, must have access to diverse financial support, including development activities to facilitate enrichment of the program.

1

Examples of Evidence:
- Documentation of funds obtained
- Initiatives for fund-raising
- Description of how these funds are distributed and used

C. Physical Facilities

Standard 15: The physical facilities of the Faculty and those at other University sites where students and faculty are located, must be adequate and appropriately equipped to achieve the stated mission.

3

Examples of Evidence:
- General, practice and simulated facilities sufficient so that both individual and team learning experiences occur and that each student has the opportunity to participate
- Documentation of adequate space, instrumentation, information technology resources, supplies and services to support all activities of the Faculty
- Office space for faculty that provides privacy for study and for counselling students
- Adequate facilities for support staff including space for clerical and receptionist duties, copying services, and the housing of equipment and supplies
- Examples of space provided for student activities and organizations
- Description of how your facilities meet legal standards for disabled individuals

D. Information Resources

Standard 16: The Faculty must ensure access for all faculty, preceptors and students to library and learning resources that is sufficient in quantity and quality to support all educational and scholarly activities in accordance with the Faculty's mission and goals.

2

Examples of Evidence:
- Description of the library, its holdings and its adequacy with respect to the program
- Identity and qualifications of the professional librarian that supports the program
- Faculty liaison or committee that ensures appropriate integration of library resources into the teaching program
- Student access to the library
- Student access to electronic information resources including journals, databases and other learning resources
- Programs for acquainting the students with the effective and efficient use of the library , both physical and electronic, as well as with the use of information storage and retrieval techniques
- Student and faculty opinions on the adequacy of library resources
- Estimates of utilization of available library resources by students and faculty

Criterion 16.1: The Faculty should ensure availability of remote access technologies and mechanisms that facilitate utilization of library information from off-campus and experiential program teaching sites.

Examples of Evidence:
- Description of search capabilities
- Documentation of on-line access for sites and preceptors
- Document delivery services, and other methods for access to materials not in the collection

Criterion 16.2: The Faculty and University should recognize experiential program preceptors and clinical training sites as authorized users and provide them, consistent with legal restrictions, with online (complimentary) access to library electronic collections, journals and databases as part of the Faculty's support to external clinical faculty.

III: Students

An evaluation of the overall state of student/faculty relations and the overall level of student satisfaction with the Faculty of Pharmacy program should be included.

A. Student Services and Activities

> **Standard 17:** Within the Faculty, there must be an administrative structure devoted to student services. **2**

Criterion 17.1: The Faculty must have an ordered, accurate and secure system of student records, that are maintained in accordance with University policies and FPT privacy legislation.

Examples of Evidence:
- Record systems that manage, oversee and coordinate student records and affairs.
- Policies and procedures regarding the collection and release of information

Criterion 17.2: Student services personnel within the Faculty must be appropriately trained to provide necessary services, and be familiar with the range of support services available at the University to refer students as appropriate.

Examples of Evidence:
- Description of training provided to student services personnel within the Faculty
- Provision of information about financial aid
- Facilitation of access to health services
- Procedures for immunizations and for meeting the requirements of the experiential practice sites
- Provision of academic advising and career-pathway counselling
- Policies pertaining to human rights legislation
- Orientation programs prior to the start of the formal curriculum
- Policies for student accommodation

Standard 18: The Faculty must have student representation on relevant Faculty committees.

2

Examples of Evidence:
- Committee terms of reference and membership

Standard 19: The Faculty must have suitable mechanisms to develop student leadership and professionalism, forums for student dialogue, and must ensure adequate communication of student opinions and perspectives.

1

Examples of Evidence:
- Existence of student government within the Faculty
- Faculty representation on student governance bodies
- Description of forums for student dialogue, and ways to ensure adequate consideration of student opinions and perspectives
- Systematic evaluation procedures (including such things as questionnaires, exit interviews) for the purpose of evaluating faculty, curriculum and other aspects of the professional program
- Continuous quality improvement activities and feedback to the students

> **Standard 20: The Faculty must have adequate space for student activities and organizations.**   **1**

Examples of Evidence:
- Documentation of the facilities available to students
- Student statements regarding the adequacy of space

> **Standard 21: The Faculty must provide an environment and culture that promotes professional behaviour and harmonious relationships among students, faculty, administrators, preceptors and staff.**   **2**

Criterion 21.1: The Faculty must have, via a broadly-based process, a student code of conduct (consistent with University policies on student, faculty, preceptor, and staff professionalism) that defines expected behaviours and consequences for deviation from the code, as well as due process for appeals. The students must be made aware of the code of conduct and process for appeals.

Examples of Evidence:
- Code of conduct and procedures regarding its communication and application
- Evidence of student understanding of the expectations and consequences of violations to the code
- Evidence of individual student acceptance of the code and consequences of violations
- Evidence of enforcement of the code

Criterion 21.2: The Faculty must support student participation in provincial, regional and national pharmacy, scientific, and other professional organizations and activities.

Examples of Evidence:
- Policies for attendance
- Financial support

Criterion 21.3: The Faculty must implement strategies and activities to strengthen the professional culture of the student experience.

Examples of Evidence:
- Participation in professional curricular and extracurricular activities
- Service learning, volunteer experiences, community-engaged scholarship, social accountability or similar initiatives
- Participation in student inspired interprofessional activities
- Other professional activities, such as white coat ceremonies and student-developed codes of conduct, honour codes, and policies to guide student body relationships with the pharmaceutical industry with respect to the receipt of gifts or other benefits.

B. Admissions

> **Standard 22:** The Faculty must establish criteria, policies, and procedures for admission to the professional program in pharmacy. [Applicants should be aware that the English/French requirements for licensure may be different to those required for entrance to the University. Licensure to practice in a province requires meeting the language proficiency requirements established for the profession by the government in that particular province.}. **3**

Criterion 22.1: Admissions criteria must include the satisfactory completion of post-secondary, pre-professional course requirements in general education and basic and biomedical sciences.

Examples of Evidence:
- Pre-professional courses or requirements chosen to allow the students to be successful in the pharmacy program. For example, basic and biomedical sciences (general chemistry, organic chemistry, biological sciences, mathematics, information and communication technologies, and physical sciences); general education (humanities, behavioural sciences, social sciences, and communication skills)
- Established levels of expected academic achievement in the pre-professional requirements

Criterion 22.2: In addition to academic requirements, admissions criteria must include other devices or tools that are designed to assess the suitability of candidates to enter the profession of pharmacy.

Examples of Evidence:
- Assessment methods such as (but are not limited to): the results of in-person standardized interviews of applicants; evaluation of verbal and/or written communication skills; evaluation of an understanding of the pharmacy profession; or evaluation of the commitment to patient-focussed care
- Defined essential skills relevant to performance expectations in the academic program and subsequent practice of a pharmacist that could assist a potential applicant to accurately gauge their interest and suitability for the field of pharmacy. This document could also be used in identifying required skills that could impede applicants with certain disabilities (even with appropriate accommodations) from fully acquiring the competencies defined for graduates.
- Level of expected performance on other standardized tests
- Application of NAPRA language criteria
- Criminal record and child abuse registry check
- Immunization requirements

Criterion 22.3: The Faculty must develop and publish their mechanism for the weighting of admission criteria and the data that are used to determine offers of admission.

Examples of Evidence:
- Website locations for information provided to applicants
- Admission policies and procedures
- Printed materials

> **Standard 23: The Faculty must establish a recruitment program to provide a pool of well-qualified applicants.**
>
> **1**

Examples of Evidence:
- Recruitment materials
- Description of recruitment events or communications
- Description of the method used to determine quality and diversification in the current student enrolment and results of that determination

IV: Academic Program

It is important to include a clear curriculum map and how the mapping was done (relative to the AFPC Educational Outcomes and the NAPRA Professional Competencies for Canadian Pharmacists at Entry to Practice).

> If practice experiences are structured under co-op arrangements, the Faculty must ensure that the co-op site and preceptor selection criteria, program-defined educational outcomes, length of practice experiences, and student assessment procedures are established and verified in a manner equivalent to traditional experiential placements.

A.   Curriculum Management

> **Standard 24: The Faculty must have a curriculum committee and/or related bodies that is/are responsible for the planning, design, organization and improvement of the curriculum.**
>
> **3**

Criterion 24.1: The committee(s) must be composed of faculty, students and representatives from the profession or membership as permitted by University policies.

Criterion 24.2: Curricular oversight by the relevant committee(s) must include a definition of curricular goals and structure, educational outcomes, course content, instructional and assessment strategies, and continuous curriculum evaluation for quality improvement.

Criterion 24.3: The relevant committee(s) must have adequate resources to serve as the central body for the management of orderly and systematic reviews of curricular structure, content, process, and outcomes, based on assessment data.

Criterion 24.4: The relevant committee(s) must establish appropriate liaison mechanisms with units and instructors who come from outside the Faculty to ensure effective instructional delivery and to ensure assessment and achievement of the educational objectives of the professional degree program.

Examples of Evidence:
- Committee structures and terms of reference
- Minutes
- Correspondence or agreements with other Faculties or academic units
- Description of how assessment data are used

B. Educational Outcomes and General Curriculum Design

> **Standard 25: The professional program in pharmacy must be based on an organized educational framework and continuous quality monitoring which will facilitate development of graduates to be medication therapy experts, able to provide optimal drug therapy through patient–centred care.**
>
> **3**

Criterion 25.1: The intended outcomes must be based on the current AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy and must prepare graduates to meet the current National Association of Pharmacy Regulatory Authorities "Professional Competencies for Canadian Pharmacists at Entry to Practice".

Examples of Evidence:
- Outline of educational outcomes and entry-to-practice competencies adopted by the program
- Curriculum mapping to educational outcomes or matrix of outcomes and expected level of achievement, linked to course objectives and, most importantly, to experiential activity objectives

Criterion 25.2: The Faculty must develop a framework for continuing program quality assessment and improvement.

Examples of Evidence:
- List of recurrent measurements, including their frequency and sectors of impact*, organized in a systematic way as to obtain data on program strengths and aspects needing improvement
- Documents detailing the indicators measured for the different sectors of impact* to track program quality over time

Criterion 25.3: The curriculum, and any subsequent changes to it, must be documented and evaluated against the required educational outcomes and competencies.

Examples of Evidence:
- Table summarizing the changes made to the program over the years and the measurement or data that triggered these changes
- List of changes made to the program and assessment of the impact on the desired educational outcomes

Standard 26: The professional degree program in pharmacy must be a minimum of four academic years, or the equivalent number of hours or credits, including a series of core courses, practice experiences and interprofessional educational experiences.

3

Examples of Evidence:
- Curriculum summary showing both horizontal and vertical sequencing and integration of material
- Curriculum map showing how outcomes/competencies are met
- Descriptive material outlining the curriculum structure

C. Core Curriculum - Knowledge and Skills

Standard 27: The core curriculum must include a balance of coursework in biomedical sciences, pharmaceutical sciences, behavioural, social and administrative sciences, and clinical sciences and practice skills.

3

Criterion 27.1: The curriculum must include foundational content in the biomedical sciences that provides the basis for understanding health promotion and disease prevention, and should include (but is not limited to) content in anatomy, biochemistry, immunology, microbiology, molecular and cell biology, physiology, and pathophysiology (any or all of which can be started in the pre-pharmacy program and extended in the professional program).

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*Example : input (admissions and resources), throughput (student experience and progression) and output (educational outcomes and competencies to enter practice)

Examples of Evidence:
- Documents showing course content

Criterion 27.2: The curriculum must include content in the pharmaceutical sciences of such depth, scope, timeliness, quality, sequence, and emphasis to provide foundation for and support to the intellectual and clinical objectives of the professional program in pharmacy. This should include but is not limited to medicinal chemistry, pharmacology, toxicology, pharmaceutics, biopharmaceutics, pharmacokinetics, pharmaceutical biotechnology and pharmacogenomics.

Examples of Evidence:
- Documents showing course content, topics and learning outcomes

Criterion 27.3: The curriculum must include content in the behavioural, social, and administrative pharmacy sciences that provides the basis for understanding and influencing management processes in pharmacy, pharmacy and health systems, the drug safety system, the causes and prevention of health system (including medication) errors, and the role of governments in the planning, funding and delivery of health care services. This should include but is not limited to content in the profession of pharmacy, biostatistics, pharmacoepidemiology, health care economics, pharmacoeconomics, ethical and professional standards of practice, cultural diversity, health systems, business and practice management.

Examples of Evidence:
- Documents showing course content, topics and learning outcomes

Criterion 27.4: The curriculum must include a clinical sciences component that provides for the understanding and acquisition of the knowledge and development of the skills necessary for the delivery of competent care to, or on behalf of, patients throughout the health care system. This should include, but is not limited to content in clinical pharmacokinetics, complementary and alternative medicines, drug abuse and dependency, drugs in pregnancy, emergency first care, geriatrics, health promotion and disease prevention, immunization, information technology and practice support tools, medication administration, nutrition, pediatrics, pharmacy law and regulatory issues, pharmacotherapeutics, the pharmacist's role in public health, the pharmacist's role in primary care, medication and patient safety practices, and self care/non-prescription drug use.

Examples of Evidence:
- Documents showing course content, topics and learning outcomes

Criterion 27.5: Clinical practice skills must be developed through appropriate environments such as practice, laboratory or simulation experiences. This should include but is not limited to collaborative care with other health care providers, compounding, diagnostic and point-of-care testing, disease state management, dispensing and prescription processing, drug information provision including drug literature evaluation (including assessment of primary and tertiary sources), evidence-based decision making, patient assessment and outcomes monitoring, patient and professional communications, patient health information and documentation of care, physical assessment, and medication prescribing or drug therapy management by pharmacists.

Examples of Evidence:
- Course materials showing activities and assessments in clinical skills

D. Core Curriculum - Practice Experiences

Standard 28: Practice experiences must be of adequate intensity, breadth, structure and duration so as to achieve the defined educational outcomes, and must integrate, reinforce and advance the knowledge, skills, attitudes and values developed through the other components of the professional program, including collaboration and teamwork. **3**

Criterion 28.1: The curriculum must include practice experiences where students can develop the appropriate clinical skills to assist a variety of patients, including the management of patients with acute illnesses and/or chronic conditions in primary care, long-term care, critical or emergency care, and those in the transitions between levels of care.

Criterion 28.2: Student tasks during all stages of experiential learning must contribute meaningfully and productively to direct patient care and the professional activities of the practice site at a level appropriate for the student's year of study.

Examples of Evidence:
- Examples of direct patient care activities
- Practice experience manuals
- Assessment forms
- Description of practice experience goals, objectives and outcomes which describe patient care activities
- Outlines of various rotations/activities at various sites
- Feedback from practice sites

Criterion 28.3: All practice experiences must be under the supervision of appropriate qualified preceptors.

Examples of Evidence:
- List of preceptors and their qualifications, linked to practice activities as appropriate
- Preceptor training materials

Criterion 28.4a: The academic program leading to the Bachelor of Science in Pharmacy degree must include a total of 16 weeks (minimum) (640 hours) of practice experiences. The total hours of practice experiences must provide the opportunity to develop proficiency in all competencies required for entry-to-practice pharmacy practice.

Criterion 28.4b: For the Bachelor's degree, early and mid-program practice experiences must involve at least four weeks (160 hours) of student placement in practice sites and may be supplemented with additional volunteer activities, service learning or other forms of community-engaged learning.

Criterion 28.4c: For the Bachelor's degree, a sustained period of required concluding practice experiences near the end of the program must involve at least twelve weeks (480 hours) of fulltime, student placement in practice sites.

Criterion 28.4d: The academic program leading to the PharmD first professional degree must include a total of forty weeks (minimum) (1600 hours) of practice experiences. The total hours of practice experiences must provide the opportunity to develop proficiency in all competencies required for entry to pharmacy practice.

Criterion 28.4e: For the PharmD (first professional degree) program, early and mid-program practice experiences must involve at least eight weeks (320 hours) of student placement in practice sites and may be supplemented with additional volunteer activities, service learning or other forms of community-engaged learning.

Criterion 28.4f: For the PharmD (first professional degree), a sustained period of required concluding practice experiences near the end of the program must involve at least twenty-four weeks (960 hours) of fulltime, student placement in practice sites.

Examples of Evidence:
- Documentation that early and mid-program practice experiences are offered in primary care and institutional practice settings for purposes of developing professional skills in students and that they are organized as a curricular progression so as to support growth in the student's capabilities.
- Documentation that student activities in early and mid-program practice experiences are synchronized with, and focus on refinement of skills introduced in the classroom or practice laboratory (experiences may be designed in conjunction with didactic courses or as a discrete experiential offering).
- Documentation of concluding practice experiences near the end of the program and their provision for active participation and in-depth experiences to refine practice skills and to develop, in a graded fashion, the level of confidence, judgement, efficiency and responsibility needed for independent practice (concluding practice experiences should

not present new or added core knowledge or professional skills to students rather the concluding practice experiences should be structured to permit students to integrate and apply core knowledge and techniques initially presented in the classroom or laboratory, in the provision of competent patient care at the practice site)
- Mapping of practice experiences to NAPRA Professional Competencies for Canadian Pharmacists at Entry to Practice (March 2014).

Standard 29: **The Faculty must ensure that there are adequate personnel, resources, practices, and systems in place to support student learning and skills development at the practice sites selected for student practice experiences, and those practice experience sites must meet relevant regulatory requirements.** **2**

Examples of Evidence:
- Policies related to selection of sites and preceptors
- Appropriate licenses
- Practice credentials
- Description of educational programs or development
- Models of supervision
- Outcome measures
- Practice activities
- Schedules
- Measurement of assessment consistency across preceptors and practice sites

Criterion 29.1: The Faculty must provide evidence of working collaboratively with other health sciences programs of the University, as well as practice experience sites, to ensure that pharmacy students are provided access to patients and facilities, support and work tools at the level necessary to achieve intended educational outcomes and expected patient care service deliverables.

Criterion 29.2: Practice sites must be able to provide interprofessional collaborative learning environments.

Criterion 29.3: The Faculty must have established criteria and training for preceptors and preceptors must be committed to supporting the teaching process.

Examples of Evidence:
- Preceptor orientation and education program (for both new and experienced preceptors)

Criterion 29.4: The Faculty must have established criteria for selection of practice sites.

Criterion 29.5: The model of supervision at each stage of the practice experience curriculum must ensure adequate oversight, coordination, guidance, instruction, and assessment of each student.

Criterion 29.6: The practice site must have appropriate amenities to support student learning.

> **Standard 30: An adequately resourced administrative office or system must be in place to manage the experiential program including practice sites and preceptors, and the quality assurance program for the practice experiences.**
>
> **2**

Examples of Evidence:
- Staffing for this office or system
- Preceptor orientation and training program (for both new and experienced preceptors)
- Standards or criteria for selection and evaluation of preceptors and practice sites

Criterion 30.1: The administrative office or system must be led by an individual or individuals with appropriate qualifications or expertise in selection, development and evaluation of practice sites, and assessment of student performance

Criterion 30.2: The Faculty must establish a quality assurance program for the practice experiences component of the curriculum.

Examples of Evidence:
- Practice experiences materials such as manuals, on-line materials, assessment methods
- Results of student evaluations of practice experiences
- Outline of quality assurance and improvement processes

> **Standard 31: Appropriate formalized affiliation or contractual agreements must be in place between the University and the experiential site to outline the authority, privileges, obligations and responsibilities of the Faculty and the Site.**
>
> **1**

Examples of evidence
- Examples of the legal support available

Criterion 31.1: Agreements should address student-related matters such as access to health services at the site, liability, insurance coverage, criminal record background checks, student disclosures, immunization policies, patient confidentiality and privacy of records, and professional conduct expectations.

Criterion 31.2: Preceptors and other clinical faculty employed by the experiential sites should be offered or be eligible for an appropriate academic appointment to recognize their critical role in the education of students. Such appointments should permit promotion in the relevant category according to established criteria.

Criterion 31.3: Agreements should provide for sufficient advance notice of termination by either party to permit the development of alternate arrangements, should these become necessary.

Examples of Evidence:
- Examples of agreements
- Description of any academic appointments in place

E. Interprofessional and Intraprofessional Education

> **Standard 32:** The program must provide elements within the required curriculum for interprofessional interaction with students and faculty from other health profession programs.
>
> **2**

Criterion 32.1: The curriculum must include required interprofessional learning experiences to facilitate the development of patient care communications, teamwork, and problem-solving skills, and to broaden the understanding of pharmacy students about the roles and competencies of other health professionals, including pharmacy technicians.
Criterion 32.2: Interprofessional learning experiences must be offered throughout the professional program, and may include variable modalities such as small group settings, skills simulations, case discussions, and as part of the experiential program.

Criterion 32.3: The interprofessional learning experiences must be designed to develop a set of required competencies, and appropriate assessment strategies must be employed to ensure that graduates meet the competencies.

Examples of Evidence:
- Support for interprofessional education and interprofessional practice embedded in the Faculty's strategic plan and curriculum
- Evidence that interprofessional learning is mandatory for students in the health sciences
- Evidence that interprofessional education is recognized as a valued teaching strategy
- Faculty development opportunities for preceptor interprofessional continuing professional development
- Descriptions of engagement of students in interprofessional activities
- A list of interprofessional team members and role models and an indication of how they accomplish the identified interprofessional learning objectives/outcomes

- Descriptions of the interprofessional competency framework adopted by the University and its academic units, interprofessional competencies, the interprofessional curriculum and/or activities
- Interprofessional course materials

F. Teaching and Learning Processes

Standard 33: The Faculty must use and integrate a variety of teaching and learning methodologies that have been shown through evaluation of the academic program to produce graduates who have met the required educational outcomes.

3

Criterion 33.1: The curriculum and program design must include an overall plan of teaching and learning strategies, integrated with appropriate assessment strategies.

Criterion 33.2: Teaching strategies and technologies must support the needs and learning styles of diverse learners, while appropriately developing the knowledge, skills, attitudes and judgment required of the pharmacy graduate.

Examples of Evidence:
- Description of teaching and learning processes in the curriculum and methods used to evaluate their appropriateness
- Development of critical thinking, problem-solving, and oral and written communication skills supported through the application of information and other instructional technologies, laboratory experiences, practice- and decision-support tools, case studies, guided group discussions, problem-based learning cases, and simulations and other practice based exercises (where appropriate, these techniques should involve actual or standardized patients, pharmacists, and other health care professionals)
- Promotion of the development of life-long learning habits through an emphasis on active, self-directed learning and the fostering of ethical responsibility for maintaining and enhancing professional competence
- Procedures for student to assume responsibility for their own learning (including assessment of their learning needs)
- Development of personal learning plans, and self-assessment of their acquisition of knowledge, skills, attitudes, and values and their achievement of desired competencies and outcomes
- Teamwork and collaboration examples

G. Assessment of Student Learning and Student Progression

> **Standard 34: The Faculty must establish principles and methods for the formative and summative assessment of student achievement.** **3**

Criterion 34.1: A variety of valid and reliable assessment methods must be systematically and sequentially applied throughout the professional program in pharmacy.

Criterion 34.2: Psychometrically sound, objective structured or performance based assessments must be used in the overall assessment plan at regular intervals in a student's progression through the program to confirm achievement of educational outcomes and professional competencies.

Criterion 34.3: The Faculty must employ appropriate methods to document students' progressive achievement of the educational outcomes and competencies throughout the curriculum and the practice experiences.

Examples of Evidence:
- Reliable and valid assessment instruments that measure cognitive learning and the mastery of practice skills, values and attitudes that contribute to desired professional behaviours
- Demonstration of the effectiveness of assessment tools

> **Standard 35: The faculty must establish and publish criteria, policies, and procedures for academic progression as well as for academic probation, dismissal, appeals, and readmission.** **2**

Examples of Evidence:
- An ongoing monitoring system of student performance for the early detection of students in academic difficulty
- Expeditious intervention and system of access for necessary student services, such as tutorial support or faculty advising
- Websites or calendar entries
- Description of policies and procedures

CCAPP Accreditation decision tree