

SCHOOL OF PHARMACY

SECTION CONTENTS

Personnel		443
1	The Memorial University of Newfoundland Code	443
2	Student Code of Conduct	443
2.1	Pharmacy Students	443
3	School Description	443
3.1	Vision Statement	443
3.2	Mission Statement	443
3.3	Accreditation Status	443
4	Description of Programs	443
4.1	Doctor of Pharmacy (Pharm.D.)	443
4.1.1	Doctor of Pharmacy (Pharm.D.), Full-Time Program	443
4.1.2	Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program	444
5	Admission Regulations for the School of Pharmacy	445
5.1	Doctor of Pharmacy (Pharm.D.), Full-Time Program	445
5.1.1	General Information	445
5.1.2	Application Forms and Deadlines	445
5.1.3	Admission Requirements	445
5.1.4	Acceptance Procedures	446
5.2	Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program	446
5.2.1	General Information	446
5.2.2	Application Forms and Deadlines	446
5.2.3	Admission Requirements	446
5.2.4	Acceptance Procedures	446
6	Program Regulations	447
6.1	Doctor of Pharmacy (Pharm.D.), Full-Time Program	447
6.2	Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program	448
6.2.1	Additional Program Requirements	448
6.2.2	Student Withdrawal	448
6.2.3	Leave of Absence	448
7	Promotion Regulations for the Doctor of Pharmacy (Pharm.D.), Full-Time Program	449
7.1	General Information	449
7.2	Promotion Status	449
7.3	Clear Promotion	449
7.4	Promotion Denied	449
7.5	Other Information	449
7.6	Student Withdrawal	449
7.7	Leave of Absence	449
8	Supplementary Final Examinations	450
8.1	Doctor of Pharmacy (Pharm.D.), Full-Time Program	450
8.2	Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program	450
9	Graduation	450
10	Waiver of School Regulations	450
10.1	General Information	450
11	Appeal of Regulations	450
12	Course Descriptions	451

List of Tables

Table 1	Doctor of Pharmacy (Pharm.D.), Full-Time Program	447
Table 2	Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program	448

www.mun.ca/pharmacy

Dean

Bugden, S., B.Sc.(Pharm.), *University of Manitoba*, M.Sc. *Oxford*, Pharm D. *University of Washington*; Associate Professor

Up-to-date personnel listings are available at www.mun.ca/pharmacy/about/people.php.

1 The Memorial University of Newfoundland Code

The attention of all members of the University community is drawn to the section of the University Calendar titled **The Memorial University of Newfoundland Code**, which articulates the University's commitment to maintaining the highest standards of academic integrity.

2 Student Code of Conduct

Memorial University of Newfoundland expects that students will conduct themselves in compliance with University Regulations and Policies, Departmental Policies, and Federal, Provincial and Municipal laws, as well as codes of ethics that govern students who are members of regulated professions. The *Student Code of Conduct* outlines the behaviors which the University considers to be non-academic misconduct offences, and the range of remedies and/or penalties which may be imposed. Academic misconduct is outlined in **UNIVERSITY REGULATIONS - Academic Misconduct** in the University Calendar.

For more information about the *Student Code of Conduct*, see www.mun.ca/student.

2.1 Pharmacy Students

In addition to the *Student Code of Conduct* above, students in Pharmacy programs are also required to adhere to the Newfoundland and Labrador Pharmacy Board Code of Ethics, the Code of Professional Conduct for Pharmacy Students, and the School of Pharmacy Pledge of Professionalism as outlined at www.mun.ca/pharmacy/.

3 School Description

The School of Pharmacy is committed to providing programs of quality and excellence that will prepare individuals to contribute significantly in pharmacy practice settings. The experiential learning component of the programs ensures students have the opportunity to integrate academic learning with professional practice and to develop the necessary knowledge, skills and attitudes required of practicing pharmacists. The School encourages a close working relationship among students, faculty, and staff, and prides itself on its strong association with and support of the pharmacy community at both the provincial and national level.

Information regarding the School of Pharmacy (undergraduate and graduate programs) is available at www.mun.ca/pharmacy. For additional information on graduate programs see **School of Graduate Studies**.

Students must meet all regulations of the School in addition to those stated in the general regulations. For information concerning **admission/readmission** to the University and **general academic regulations** (undergraduate), refer to **UNIVERSITY REGULATIONS**.

For information regarding fees and charges, see the Financial and Administrative Services website at www.mun.ca/finance/fees/.

For information regarding scholarships, bursaries and awards, see www.mun.ca/scholarships/scholarships.

3.1 Vision Statement

To be a distinguished and innovative experienced-based pharmacy education program that fosters excellence in practice, professionalism, scholarship, and research to improve our citizens' health and well-being.

3.2 Mission Statement

The School of Pharmacy:

Cultivates programs of distinction in pharmacy education and research, engages the broader community and offers innovative programs that are destinations of choice for undergraduate and graduate students, employers and funding agencies, and provides leadership in pharmacy practice and research.

3.3 Accreditation Status

The Bachelor of Science (Pharmacy) program of the School of Pharmacy at Memorial University of Newfoundland has been awarded Full Accreditation Status by the Canadian Council for Accreditation of Pharmacy Programs for the period 2017-2021.

The Doctor of Pharmacy program of the School of Pharmacy at Memorial University of Newfoundland has been awarded Provisional Accreditation by the Canadian Council for Accreditation of Pharmacy Programs for the period 2017-2021.

4 Description of Programs

Students previously admitted to the former Bachelor of Science (Pharmacy) program, and in good standing, must complete all program requirements by 2021. Students currently completing the requirements for this program must follow the Calendar regulations for the Academic year in which they were admitted to the program. Memorial University of Newfoundland Calendars by Academic year can be viewed at www.mun.ca/regoff/calendar.php.

4.1 Doctor of Pharmacy (Pharm.D.)

The School of Pharmacy offers two program options leading to the undergraduate Doctor of Pharmacy (Pharm.D.) degree program, the full-time, entry-to-practice program and the part-time program for working professionals.

4.1.1 Doctor of Pharmacy (Pharm.D.), Full-Time Program

The full-time, entry-to-practice Doctor of Pharmacy (Pharm.D.) program prepares students to graduate as medication therapy experts, prepared to embrace the full scope of pharmacy practice. Students are required to complete 30 credit hours of specific prerequisite courses prior to entry into the program, followed by five years of study in the pharmacy program. The program is student-focused, comprehensive, and experience-based. The curriculum provides students with the scientific knowledge and clinical skills necessary to enter professional practice. Instructional methods emphasize critical thinking, problem-solving, communication, professionalism, and ethical behaviours. During the program, students will develop an understanding of the professional and societal responsibilities of a

pharmacist, and will recognize the need for lifelong learning. The extensive Pharmacy Practice Experience component prepares students for a variety of professional settings. The aim is to graduate students who are scientific inquisitors, interprofessional collaborators, independent decision makers, and leaders who have the ability to adapt their practice to fulfil their evolving professional roles. Pharm.D. graduates will be prepared to practice independently in a variety of pharmacy settings including community pharmacy, hospital pharmacy, pharmaceutical industry, pharmacy organizations, research, government, and academia.

All courses in the School of Pharmacy are designated by the abbreviation PHAR.

4.1.1.1 Registration as a Pharmacy Student

A student must register annually with the Newfoundland and Labrador licensing body as a "Pharmacy Student" by September 30th. As part of the registration process, students must provide a current certificate of conduct (criminal record check). Further information may be obtained at www.nlpb.ca. Additionally, prior to the commencement of a Pharmacy Practice Experience in another Canadian jurisdiction, a student must register with the respective provincial or territorial licensing body. Further requirements may exist for international Pharmacy Practice Experience. A student who fails to meet the registration requirements will be required to withdraw from the program.

4.1.1.2 Pharmacy Practice Experience (PPE)

Through Pharmacy Practice Experiences, the program aims to prepare students for exemplary pharmacy practice. Students are expected to display appropriate communication, professionalism, and teamwork, and demonstrate increased independence and critical reasoning as they progress in the program. PPEs consist of early and intermediate experiences as well as advanced pharmacy practice experiences (APPE). APPE's may occur at any time during the academic year and may be offered in whole or in part outside the normal start and end dates of a semester. PPEs expose students to situations which cannot be provided in the classroom.

1. The School of Pharmacy is responsible for providing overall direction for practice experiences and will oversee the placement of students at sites. Students may be assigned to any participating site within the Province of Newfoundland and Labrador; a request to complete a PPE outside the province may be considered.
2. Students are responsible for all travel and accommodation costs associated with the PPE.
3. Students are required to provide evidence of a valid Standard First Aid Level C certificate for all PPEs. Evidence of recertification must be submitted no later than one month before the expiry date of the certification.
4. Students must have successfully completed injection training before they start an APPE.
5. Students must comply with the policies of the site to which they are assigned. Sites may have requirements for immunization, testing or documentation beyond those required by the School. Students are required to complete these requirements in a timely fashion and at their own expense. Students unable to meet these site requirements may be delayed in their program or prevented from completing their program of study.

4.1.1.3 Pharmacy Practice Experience Evaluation

1. Evaluation of the student's performance is conducted by the preceptor responsible for supervising the student during the PPE. Preceptors determine the competency level of the student for each of the outcomes.
2. The School determines the grade of each PPE, based upon the evaluation provided by the preceptor. Students will be graded as PAS (pass) or FAL (fail).
3. Students who conduct themselves in such a manner as to be terminated from the PPE site will be assigned a grade of FAL (fail) for that PPE and may be required to withdraw from the program.

4.1.2 Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program

The Doctor of Pharmacy (Pharm.D.) for Working Professionals is a part-time undergraduate program designed for practicing pharmacists who wish to remain employed while pursuing the degree of Doctor of Pharmacy. The learning environment offers an effective blend of theory and practice. The program is comprised of 15 courses totalling 55 credit hours and can normally be completed within three to five years. The program supports a patient-centered course of study and will be delivered through a combination of online courses, on-campus clinical skills workshops, and experiential learning. The program supports a patient-centered course of study and will be delivered through a combination of online courses, on-campus clinical skills workshops, and experiential learning.

All courses in the School of Pharmacy are designated by the abbreviation PHAR.

4.1.2.1 Registration as a Pharmacist

A student must be licensed as a "Pharmacist" through the student's pharmacy licensing body in the province, territory, or country in which they reside. Applicants will be asked to submit proof of licensure with the application for admission to the School and must normally maintain licensure throughout the program. Additionally, prior to the commencement of an Advanced Pharmacy Practice Experience in another jurisdiction, a student must register with the respective licensing body. Further requirements may exist for international Advanced Pharmacy Practice Experiences. A student who fails to meet the registration requirements will be required to withdraw from the program.

4.1.2.2 Advanced Pharmacy Practice Experience (APPE)

Advanced Pharmacy Practice Experiences (APPE) may occur at any time during the academic year and may be offered in whole or in part outside the normal start and end dates of a semester.

1. The Pharm.D. for Working Professionals requires the successful completion of two Advanced Pharmacy Practice Experiences (APPE) in the final year of the program. Students may request to complete both APPE courses in the same semester.
2. The School of Pharmacy provides overall direction for practice experiences and will oversee the placement of students at practice sites. Students are responsible for all travel and accommodation costs associated with APPEs.
3. For all APPEs, students are required to provide evidence of a valid Standard First Aid Level C certificate. Evidence of recertification must be submitted no later than one month before the expiry date of the certification.
4. Students are required to provide evidence of authorization to administer drugs by injection prior to the first APPE.
5. Students must comply with the policies of the site to which they are assigned. Sites may have requirements for immunization, testing or documentation beyond those required by the School. Students are required to complete these requirements in a timely fashion and at their own expense. Students unable to meet these site requirements may be delayed in their program or prevented from completing their program of study.

4.1.2.3 Advanced Pharmacy Practice Experience Evaluation

1. Evaluation of the student's performance is conducted by the preceptor responsible for supervising the student during the APPE. Preceptors determine the competency level of the student for each of the outcomes.
2. The School determines the grade of each APPE, based upon the evaluation provided by the preceptor. Students will be graded as PAS (pass) or FAL (fail).
3. Students who conduct themselves in such a manner (such as violation of the Student Code of Conduct and the Code of Professional Conduct for Pharmacy Students) as to be terminated from an APPE site will be assigned a grade of FAL (fail) for that APPE and may be required to withdraw from the program.

5 Admission Regulations for the School of Pharmacy

In addition to meeting the **UNIVERSITY REGULATIONS** students applying for admission to programs offered by the School of Pharmacy must meet the appropriate admission regulations of the School.

5.1 Doctor of Pharmacy (Pharm.D.), Full-Time Program

5.1.1 General Information

1. Admission will be to the first year of the full-time, entry-to-practice Doctor of Pharmacy program in the Fall term.
2. Entry to the School is competitive for a limited number of seats. Priority is given to applicants who are residents of Newfoundland and Labrador. The final decision on admission is determined by the Committee on Undergraduate Student Admissions of the School of Pharmacy.
3. As part of the regular quota, one seat per year is available in the program for bona fide residents of Newfoundland and Labrador First Nations or Indigenous ancestry who have met the minimum numeric grade and course requirements for admission to the program.
4. The Committee on Undergraduate Student Admissions of the School of Pharmacy considers each applicant's academic background and information on the applicant's personal characteristics and achievements as given by the applicant. Normally, personal interviews (which may include both a written and oral component) will be required. Reports from referees may also be considered.
5. The School of Pharmacy does not require certificates of conduct (criminal record checks), or other screening procedures as a condition of admission to its program. However, applicants should be aware that a certificate of conduct will be required as part of the registration process with the Newfoundland and Labrador pharmacy licensing body. In addition, applicants should be aware such certificates of conduct or other screening procedures may be required by practice experience sites used by the University for academic course assignments necessary for graduation. Such sites may refuse to accept students on the basis of information contained in the record check or other screening procedure thus preventing the students from completing a practice experience or other clinical requirement. As a result, such students may not be eligible for promotion or graduation. It is the students' responsibility to have such checks and screening procedures completed as required and at their own expense. The screening procedures of any given site may change from time to time and are beyond the control of the University.

5.1.2 Application Forms and Deadlines

1. The application for admission or readmission to programs offered by the School of Pharmacy is submitted online. The application for admission or readmission to the University is submitted online at www.mun.ca/undergrad/admissions/apply. The deadline date for submission of applications is February 1st for Fall admission.
2. All supporting documentation and fees for admission to the program must be received on or before the deadline of February 1st in any year.
3. Incomplete applications and applications received after the deadline will not be considered.

5.1.3 Admission Requirements

Applicants who are not currently students at Memorial University of Newfoundland must apply for admission to the University under the **Categories of Applicants, Admission Criteria and Other Information** outlined under **UNIVERSITY REGULATIONS - Admission/Readmission to the University (Undergraduate)**. In addition to meeting these regulations, applicants to the School must meet requirements as indicated below.

1. To be considered for admission, an applicant must have completed the 30 credit hours outlined below by the end of the Winter term for the year in which admission is being sought. These courses and credits must have been taken at Memorial University of Newfoundland or accepted for transfer credit from an academic institution. The 30 credit hours are:
 - Biology 1001 and 1002
 - Chemistry 1050 and 1051
 - 6 credit hours in English, 3 credit hours of which may be replaced by any Memorial University of Newfoundland Critical Reading and Writing (CRW) course
 - Mathematics 1000 and 1001
 - Physics 1020 or 1050, and Physics 1021 or 1051
2. For students attending Grenfell Campus, the following course offerings are acceptable for admission to the School;
 - Biology 1001 and 1002
 - Chemistry 1200 and 1001
 - 6 credit hours in English, 3 credit hours of which may be replaced by any Memorial University of Newfoundland Critical Reading and Writing (CRW) course
 - Mathematics 1000 and 1001
 - Physics 1020 or 1050, and Physics 1021 or 1051
3. Normally an application will not be considered from an applicant who cannot produce evidence that the above requirements have been met or will have been met by end of the Winter term of the year in which admission is being sought.
4. An unsuccessful applicant who wishes to reapply for admission is required to submit the application forms relevant to the year of reapplication and will be required to enter into the competition for that year.

5.1.4 Acceptance Procedures

1. The decision of the Committee on Undergraduate Student Admissions of the School of Pharmacy will be sent electronically to applicants by the Dean of the School. No other form of notification will be considered official.
2. Applicants shall have 10 calendar days from the date of offer of admission in which to confirm acceptance. The signed intention to accept the offer must be accompanied by a deposit of \$500, which will be credited towards tuition fees. The deposit will be forfeited if the applicant subsequently declines the offer or fails to register in the Pharmacy program for the Fall term.
3. If the acceptance form and deposit is not received within 10 calendar days, the offer by the School will be withdrawn, and the applicant will be notified.
4. Students who fail to register for courses for the Fall term of admission will be considered withdrawn from the program. Such applicants, if they wish to be considered for admission in the future, must submit a new application for admission to the program.

Applicants requiring additional information may refer to the School of Pharmacy website at www.mun.ca/pharmacy.

5.2 Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program

5.2.1 General Information

1. Admission will be to the first year of the Doctor of Pharmacy (Pharm.D.) for Working Professionals in the Fall term.
2. Entry to the program is competitive for a limited number of seats. Priority is given to applicants who are residents of Newfoundland and Labrador or who graduated from Memorial University of Newfoundland's School of Pharmacy. The final decision on admission is determined by the Committee on Undergraduate Student Admissions of the School of Pharmacy.
3. The Committee on Undergraduate Student Admissions of the School of Pharmacy considers each applicant's professional background and information on the applicant's personal characteristics and achievements as given by the applicant.
4. The School of Pharmacy does not require certificates of conduct (criminal record checks) or other screening procedures as a condition of admission to its program. However, applicants should be aware such certificates of conduct or other screening procedures may be required by practice experience sites used by the University for academic course assignments necessary for graduation. Such sites may refuse to accept students on the basis of information contained in the record check or other screening procedure thus preventing the students from completing a practice experience or other clinical requirement. As a result, such students may not be eligible for promotion or graduation. It is the students' responsibility to have such checks and screening procedures completed as required and at their own expense. The screening procedures of any given site may change from time to time and are beyond the control of the University.

5.2.2 Application Forms and Deadlines

1. The application for admission or readmission to programs offered by the School of Pharmacy is submitted online. The application for admission or readmission to the University is submitted online at www.mun.ca/undergrad/admissions/apply. The deadline date for submission of applications and fees is February 1st for Fall admission.
2. All supporting documentation for admission to the program must be received on or before the deadline of March 1st in any year.
3. Incomplete applications and applications received after the deadline will not be considered.

5.2.3 Admission Requirements

Applicants who are not currently students at Memorial University of Newfoundland must apply for admission to the University under the **Categories of Applicants, Admission Criteria and Other Information** outlined under **UNIVERSITY REGULATIONS - Admission/Readmission to the University (Undergraduate)**. In addition to meeting these regulations, applicants to the School must meet requirements as indicated below.

To be considered for admission, an applicant:

1. must be a licensed pharmacist in good standing with the licensing body; and
2. must have graduated with a Bachelor's degree from an accredited Canadian Pharmacy program or the former pharmacist diploma program from the Newfoundland and Labrador College of Trades and Technology; and/or have successfully completed the Pharmacy Examining Board of Canada (PEBC) Qualifying Exam.

An unsuccessful applicant who wishes to reapply for admission is required to submit the application forms relevant to the year of reapplication and will be required to enter the competition for that year.

5.2.4 Acceptance Procedures

1. The decision of the Committee on Undergraduate Student Admissions of the School of Pharmacy will be sent electronically to applicants by the Dean of the School. No other form of notification will be considered official.
2. Applicants shall have 14 calendar days from the date of offer of admission in which to confirm acceptance. The signed intention to accept the offer must be accompanied by a deposit of \$1,000, which will be credited towards tuition fees. The deposit will be forfeited if the applicant subsequently declines the offer or fails to register in the Pharmacy program for the Fall term.
3. If the acceptance form and deposit is not received within 14 calendar days, the offer by the School will be withdrawn, and the applicant will be notified.
4. Students who fail to register for PHAR 4900 and PHAR 4901 in the Fall term of Year 1 will be considered withdrawn from the program. Such applicants, if they wish to be considered for admission in the future, must submit a new application for admission to the program.

6 Program Regulations

6.1 Doctor of Pharmacy (Pharm.D.), Full-Time Program

- The 224 credit hour full-time, entry-to-practice Doctor of Pharmacy (Pharm.D.) program requires 30 credit hours before admission and 194 credit hours after admission to the program.
- The program courses normally shall be taken in the Academic Terms in the sequence and course load as set out in **Table 1 Doctor of Pharmacy (Pharm.D.), Full-Time Program**.

Table 1 Doctor of Pharmacy (Pharm.D.), Full-Time Program

Term	Required Courses
Courses required for admission as indicated under Admission Requirements, Doctor of Pharmacy (Pharm.D.), Full-Time Program.	Biology 1001 and 1002 Chemistry 1050 and 1051 (St. John's Campus) or Chemistry 1200 and 1001 (Grenfell Campus) 6 credit hours in English, 3 credit hours of which may be replaced by any Memorial University of Newfoundland Critical Reading and Writing (CRW) course Mathematics 1000 and 1001 Physics 1020 or 1050 and Physics 1021 or 1051
Fall Year 1, Academic Term 1	Chemistry 2400 PHAR 2002 PHAR 2010 (may be completed in Fall, Winter or Spring) PHAR 2201 PHAR 2250 PHAR 2610
Winter Year 1, Academic Term 2	Chemistry 2401 PHAR 2003 PHAR 2004 PHAR 2010 (if not previously successfully completed) PHAR 2202 PHAR 2251 PHAR 2620
Spring Year 1, Academic Term 3	PHAR 2010 (if not previously successfully completed)
Fall Year 2, Academic Term 4	PHAR 3111 PHAR 3250 PHAR 3270 PHAR 3801 PHAR 3805
Winter Year 2, Academic Term 5	PHAR 3006 PHAR 3251 PHAR 3271 PHAR 3410 PHAR 3810 PHAR 3825
Spring Year 2, Academic Term 6	PHAR 305P
Fall Year 3, Academic Term 7	PHAR 4250 PHAR 4270 PHAR 4621 PHAR 4802 PHAR 4810 PHAR 4860
Winter Year 3, Academic Term 8	PHAR 4251 PHAR 4271 PHAR 4420 PHAR 4622 PHAR 4820
Spring Year 3, Academic Term 9	PHAR 406P PHAR 407P
Fall Year 4, Academic Term 10	PHAR 5250 PHAR 5270 PHAR 5430 PHAR 5815 PHAR 5830
Winter Year 4, Academic Term 11	PHAR 508P PHAR 5251 PHAR 5271 PHAR 5275 PHAR 5640
Year 5, Advanced Pharmacy Practice Experience	PHAR 605P PHAR 606P PHAR 607P PHAR 608P

6.2 Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program

- The 55 credit hour part-time, Doctor of Pharmacy (Pharm.D.) for Working Professionals program can be completed within three to five years. Normally, a student must complete the degree requirements in a maximum of five years from the time of initial admission. A student must complete all courses outlined in **Table 2 Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program**.
- A student may follow the suggested course completion maps outlined on the School of Pharmacy's website or can discuss a course schedule with an advisor in the faculty.
- A student must complete PHAR 4900 and PHAR 4901 in the first semester of the program.
- A student must maintain registration in at least one course in each academic year to remain active in the program.
- PHAR 5901-5905 may be offered on a rotating basis.
- A student may request to complete both APPE courses (PHAR 610P, PHAR 611P) in the same semester.

Table 2 Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program

Required Courses
PHAR 4900 PHAR 4901 PHAR 4902 PHAR 4903 PHAR 4910 PHAR 5901 PHAR 5902 PHAR 5903 PHAR 5904 PHAR 5905 PHAR 5920 PHAR 610P PHAR 611P PHAR 6900 PHAR 6930
Not all courses are offered every semester. Students are strongly advised to consult with the Program Coordinator for assistance with course planning if not following one of the suggested course completion maps outlined on the School of Pharmacy website.

6.2.1 Additional Program Requirements

To be considered for graduation, a student must successfully complete all 15 courses and met all other program requirements normally within five years of commencing the program. The School of Pharmacy may offer the student the option to repeat a course on the grounds of academic difficulties.

1. Applied Learning courses (PHAR 4910, 5920, 6930):
 - A student is permitted to repeat only one Applied Learning course. A student who fails an Applied Learning course on a second attempt will be required to withdraw from the program.
 - If a failed grade is received in more than one Applied Learning course, the student will be required to withdraw from the program.
2. Advanced Pharmacy Practice Experiences courses (PHAR 610P, 611P):
 - If a student fails an APPE course, the student may appeal to the Committee on Undergraduate Studies of the School of Pharmacy for permission to continue to the student's next scheduled APPE course. Should this permission be granted, the student will normally be required to repeat the failed course at a later date.
 - If a failed grade is received in more than one APPE course, the student will be required to withdraw from the program.
 - A student is permitted to repeat only one APPE course. A student who fails an APPE course on a second attempt will be required to withdraw from the program.

6.2.2 Student Withdrawal

A student may be required to withdraw from the program at any time, if, in the opinion of the Dean of Pharmacy, the student is unlikely to benefit from continued attendance or if acceptable cause is demonstrated. The Dean will recommend to the Registrar that the student is required to withdraw from the program.

6.2.3 Leave of Absence

A student may elect to withdraw temporarily from studies by requesting a leave of absence up to a maximum of a one-year duration. In all cases, the intent to withdraw voluntarily should be discussed with the Dean. At the end of this period, the student, in consultation with the Committee on Undergraduate Studies of the School of Pharmacy, should ensure that sufficient revision and preparatory work is undertaken to allow studies to be resumed readily. In the absence of good cause, any such student who does not resume studies on the specified date may be deemed to have left the program.

7 Promotion Regulations for the Doctor of Pharmacy (Pharm.D.), Full-Time Program

7.1 General Information

1. The Committee on Undergraduate Studies of the School of Pharmacy will determine each student's promotion status at the end of each Academic year.
2. In addition to meeting the promotion regulations for the School, students must meet the general academic regulations (undergraduate). For further information refer to **UNIVERSITY REGULATIONS - General Academic Regulations (Undergraduate)**.
3. Success in the program depends on meeting the requirements of all terms.

7.2 Promotion Status

A student's promotion status at the end of each Academic year will be in one of the following two categories:

7.3 Clear Promotion

Clear Promotion means a student can proceed to the next Academic year. Clear Promotion will be granted when the following criteria are met.

1. A student has completed the Academic year with a weighted average of at least 65% and a pass (numeric grade of at least 50% or PAS) in each course. A weighted average will be based on credit hours in the program of study as outlined in **Table 1 Doctor of Pharmacy (Pharm.D.), Full-Time Program**.
2. A student has maintained professional and ethical behaviour consistent with the *Student Code of Conduct* as outlined at: www.mun.ca/pharmacy.

7.4 Promotion Denied

Promotion Denied means Clear Promotion is not achieved at the end of the Academic year. A student with Promotion Denied status will normally be required to withdraw from the School. A student will be deemed to be in Promotion Denied status when any of the following criteria are met:

1. A student has obtained less than a 65% weighted average in the Academic year or has obtained less than 50% in any course or has received a grade of FAL (fail) in any course within the Academic year. A weighted average will be based on credit hours in the program of study as outlined in **Table 1 Doctor of Pharmacy (Pharm.D.), Full-Time Program**.
2. A student has not maintained the professional and ethical behaviour consistent with the **Student Code of Conduct**.

Notwithstanding the above, the School of Pharmacy may offer the student the option to repeat an Academic year on the grounds of academic difficulties. This may be offered only once during the student's program. This restriction may be waived if it has been demonstrated that the student's academic performance has been adversely affected by factors duly authenticated and acceptable to the Committee on Undergraduate Studies of the School of Pharmacy.

7.5 Other Information

To be recommended for graduation, a student must have **Clear Promotion** at the end of Academic year 4, and must have successfully completed all four Advanced Pharmacy Practice Experience (APPE) courses during Academic year 5. The following criteria will be used to assess the APPE courses:

1. A student must demonstrate consistent professional and ethical behaviour that meets the criteria of Student Conduct as outlined at www.mun.ca/pharmacy.
2. A student is required to obtain a grade of PAS (pass) in all four APPE courses (PHAR 605P, 606P, 607P, 608P).
3. Normally, if a student fails an APPE course, the Committee on Undergraduate Studies of the School of Pharmacy may permit the student to continue to the student's next scheduled APPE course and require the student to repeat the failed course at a later date. This may extend the duration of the student's program.
4. In certain circumstances, such as violation of student conduct as outlined at www.mun.ca/pharmacy or failure of an APPE course may result in the student being required to withdraw from the program.
5. A student is permitted to repeat only one APPE course. A student who fails an APPE course (PHAR 605P, 606P, 607P, 608P) on a second attempt will be required to withdraw from the program.
6. If a failed grade is received in more than one APPE course, the student will be required to withdraw from the program.

7.6 Student Withdrawal

A student may be required to withdraw from the program at any time, if, in the opinion of the Dean of Pharmacy, the student is unlikely to benefit from continued attendance or if acceptable cause is demonstrated. The Dean will recommend to the Registrar that the student is required to withdraw from the program.

7.7 Leave of Absence

Upon completion of an Academic year, a student with **Clear Promotion** may elect to withdraw temporarily from studies. Voluntary withdrawal at other times and for other reasons may be permitted in accordance with **UNIVERSITY REGULATIONS - General Academic Regulations (Undergraduate) - Registration**. In all cases, the intent to withdraw voluntarily should be discussed with the Dean. At the end of this period, the student, in consultation with the Committee on Undergraduate Studies of the School of Pharmacy, should ensure that sufficient revision and preparatory work is undertaken to allow studies to be resumed readily. In the absence of good cause, any such student who does not resume studies on the specified date may be deemed to have left the program.

8 Supplementary Final Examinations

Supplementary examinations will be offered in Pharmacy courses that have a final examination. Please note that supplementary exams in PHAR 2004, PHAR 3111 and PHAR 3006 are at the discretion of the instructor.

8.1 Doctor of Pharmacy (Pharm.D.), Full-Time Program

1. Supplementary examinations are permitted only in Pharmacy courses that have a final examination.
2. Normally, students receiving a final grade of 45-49% in a Pharmacy course and a term grade in the course, excluding the original final examination, of at least 50% may write a supplementary examination.
3. Supplementary examinations will be of similar length, degree of difficulty and weight as the original final examination.
4. Students may write a supplementary examination for any one course only once.
5. No more than three supplementary examinations in Pharmacy courses can be written during the program.
6. Students who wish to write a supplementary examination must apply in writing by completing the "Application for Supplementary Final Examination" form available from the School's website. The completed form should be submitted to the Dean's Office within 48 hours of the official release of grades by the University.
7. Any student writing a supplementary examination may obtain no more than a maximum grade of 65% in the course. The transcript will indicate that the final grade was earned as a result of a supplementary examination and that the maximum obtainable final grade is 65%.
8. Supplementary examinations will normally be written no later than the first week of the semester immediately following the one in which the course was failed, and will normally coincide with the writing of deferred examinations. Grades for supplementary examinations will be submitted to the Office of the Registrar within one week following the commencement of classes for that semester.

8.2 Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program

1. Supplementary examinations are permitted only in Pharmacy courses that have a final examination.
2. Normally, students receiving a final grade of 55-59% in a Pharmacy course and a term grade in the course, excluding the original final examination, of at least 60% may write a supplementary examination.
3. Supplementary examinations will be of similar length, degree of difficulty and weight as the original final examination.
4. Students may write a supplementary examination for any one course only once.
5. No more than three supplementary examinations in Pharmacy courses can be written during the program.
6. Students who wish to write a supplementary examination must apply in writing by completing the "Application for Supplementary Examination" form available from the School's website. The completed form should be submitted to the Dean's Office within 48 hours of the official release of grades by the University.
7. Any student writing a supplementary examination may obtain a final grade no higher than 60% in the course. The transcript will indicate that the final grade was earned as a result of a supplementary examination and that the maximum obtainable final grade is 60%.
8. Supplementary examinations will be written no later than the first week of the semester immediately following the one in which the course was failed, and will normally coincide with the writing of deferred examinations. Grades for supplementary examinations will be submitted to the Office of the Registrar within one week following the commencement of classes for that semester.

9 Graduation

Upon meeting the qualifications for any of the programs, students must apply to graduate on the prescribed "Application for Graduation" form. This form may be obtained on-line at the Memorial Self Service at www.mun.ca/regoff/stuweb.htm. The deadlines for application submission are July 15 for Fall (October) convocation, January 3 for Winter (February In-Absentia) convocation, and January 15 for Spring (May) convocation. Applications received after these dates will be processed as time and resources permit. Additional information is available from the Office of the Registrar at www.mun.ca/regoff/graduation. Information regarding Convocation, including the dates of the ceremony, is available at www.mun.ca/convocation.

10 Waiver of School Regulations

A student has the right to request waiver of School regulations. A student wishing waiver of University academic regulations should refer to **UNIVERSITY REGULATIONS - General Academic Regulations (Undergraduate) - Waiver of Regulations**.

10.1 General Information

1. The School reserves the right in special circumstances to modify, alter, or waive any School regulation in its application to individual students where merit and equity so warrant in the judgment of the Committee on Undergraduate Studies of the School of Pharmacy.
2. All requests must be submitted to the Committee on Undergraduate Studies of the School of Pharmacy for consideration. A student requesting a waiver of a School regulation must submit the request in writing to the Chair of the Committee on Undergraduate Studies of the School of Pharmacy. Medical and/or other documentation to substantiate the request must be provided. Medical documentation should normally be in the form of the Student Health Certificate, available at www.mun.ca/regoff/forms.php.
3. Any waiver granted does not reduce the total number of credit hours required for the degree.

11 Appeal of Regulations

Any student whose request for waiver of School regulations has been denied has the right to appeal. For further information refer to **UNIVERSITY REGULATIONS - General Academic Regulations (Undergraduate) - Appeal of Decisions**.

- An applicant who has been denied admission has the right to appeal this decision of the Committee on Undergraduate Student Admissions of the School of Pharmacy if it is felt by the applicant that the decision was reached on grounds other than those outlined in the **Admission Regulations - Doctor of Pharmacy (Pharm.D.), Full-Time Program** and **Admission Regulations - Doctor of Pharmacy (Pharm.D.) for Working Professionals, Part-Time Program**. The appeal should be made in writing within fourteen days of the notification of the decision and should be directed to the Dean of the School. The letter should state clearly and fully the grounds for the appeal. If the Dean of the School, in consultation with the Registrar, judges the grounds to be sufficient, the

formal appeals mechanism will be initiated.

12 Course Descriptions

In accordance with *Senate's Policy Regarding Inactive Courses*, the course descriptions for courses which have not been offered in the previous three Academic years and which are not scheduled to be offered in the current Academic year have been removed from the following listing. For information about any of these inactive courses, please contact the Dean of the School.

A student is advised to pay attention to Usage Limitation (UL) for each course to determine its program applicability.

All courses of the School are designated by PHAR and are restricted to students in the School of Pharmacy.

2002 Anatomy and Physiology I provides an overview of human anatomy and physiology throughout the lifespan. It includes aspects of cytology and histology that form a foundation for the practice of pharmacy. The focus will be on developing an understanding of the interrelationships and integration of all systems from the cell to whole organism. Special emphasis is given to the skeletal, muscular, nervous, and endocrine systems.

CR: Nursing 1002

LH: 2; attendance is required

PR: Science 1807 and Science 1808

2003 Anatomy and Physiology II provides an overview of human anatomy and physiology throughout the lifespan. It includes aspects of cytology and histology that form a foundation for the practice of pharmacy. The focus will be on developing an understanding of the interrelationships and integration of all systems from cell to whole organism. Special emphasis is given to the circulatory, respiratory, urinary, digestive, and reproductive systems.

CR: Nursing 1012

LH: 2; attendance is required

PR: PHAR 2002, Science 1807 and Science 1808

2004 Introduction to Biochemistry is an introduction to the major organic substances of living organisms, proteins, carbohydrates and lipids: their structure, analysis and biochemical function. Other topics include: enzymes; the biochemistry of membranes, including the plasma membrane and specialized intracellular membranes; and the biochemistry of selected differentiated cells.

CR: Biochemistry 2201 or the former 2101

PR: Chemistry 2400 and Physics 1020 (or 1050), and 1021 (or 1051)

2010 Service Learning requires completion of 20 hours of service in the community in any term within the first year of the program. Students will engage in projects or activities which will benefit both the host organization and the student. It will occur in an approved setting either in the academic community or with an off-campus community group. The goal is to provide opportunities for the student to develop communication and self-reflective learning skills, acquire new frames of reference and perspectives, and gain an enhanced sense of civic responsibility.

CH: 0

OR: 20 hours of service learning

2201 Pharmaceutics I provides an insight into a number of physicochemical basics and explains them within a pharmaceutical context. The course provides the basic foundation necessary for the study of pharmaceutical dosage forms, pharmacokinetics and bio-pharmaceutics.

LH: 3; attendance is required

PR: Mathematics 1000 and 1001; and Chemistry 1050 and 1051, or Chemistry 1200 and 1001, or equivalent; Science 1807 and Science 1808

2202 Pharmaceutics II is designed to provide the student with an understanding of pharmaceutical dosage forms and their applications. It applies the principles taught in Pharmaceutics I to understand the design and components of the different pharmaceutical preparations.

LH: 3; attendance is required

PR: PHAR 2201, Science 1807 and Science 1808

2250 Pharmacy Practice I begins the acquisition and application of the knowledge, skills, and attitudes necessary for pharmacy practice. The course will include an introduction to calculations, technical skills and the legal and regulatory framework of pharmacy practice. Application will occur in simulated pharmacy practice situations. Students must demonstrate skill proficiency in patient care, drug information, communication, professionalism, critical thinking, and teamwork at a level appropriate for the year of study in order to pass the course.

AR: attendance is required in practice sessions

CH: 5

CO: all Academic Term 1 Pharmacy courses, with the exception of PHAR 2010

OR: practice sessions 2 hours per week

PR: Science 1807 and Science 1808

2251 Pharmacy Practice II continues the acquisition, development, and

application of the knowledge, skills, and attitudes necessary for pharmacy practice. The legal and professional framework of pharmacy practice, patient counselling, and technical skills will be emphasized. Application will take place in real and simulated pharmacy practice situations. Students must demonstrate skill proficiency in patient care, drug information, communication, professionalism, critical thinking and teamwork at a level appropriate for the year of study in order to pass the course.

AR: attendance is required in practice sessions

CH: 5

CO: all Academic Term 2 Pharmacy courses, with the exception of PHAR 2010

LC: 2

OR: practice sessions 3 hours per week

PR: PHAR 2250; Science 1807 and Science 1808

2610 Health Systems provides an introduction to the Canadian healthcare system, its development, history, structure, and financing. The federal and provincial governments' involvement in the healthcare system and health policy will be presented. The roles and responsibilities of the pharmacist within healthcare will also be examined.

2620 Social and Ethical Behaviour introduces the social and cultural factors and determinants that influence health in Canada, and their ethical implications. Theoretical approaches from a social perspective, including value systems in Canada, ethical dilemmas and the role of ethics in pharmacy practice will be discussed.

CH: 2

LC: 2

PR: PHAR 2610

3006 Immunology (same as Biochemistry 4105 and Biology 4200) is an introduction to the cells and organs of the innate and adaptive immune systems. The molecular and cellular basis of allergy, autoimmunity, vaccination and cancer immunology will also be discussed.

CR: Biochemistry 4105, Biology 4200, and the former PHAR 4105

PR: PHAR 2004

305P Pharmacy Practice Experience I provides six weeks (240 hours) of practice experience in a community pharmacy. The focus will be on the legal and regulatory framework governing pharmacy practice, prescription processing, gathering and assessing patient information, patient education, drug information, health promotion, and quality assurance. Students will apply their knowledge and skills in the provision of patient care. Effective communication skills, professionalism, and teamwork are expected.

AR: attendance is required

PR: all Academic Term 4 & 5 courses

3111 General Biochemistry covers the catabolism of carbohydrates, lipids and amino acids. Mitochondria, chloroplasts and ATP synthesis. Biosynthesis of carbohydrates and lipids. Metabolic specialization of differentiated cells and tissues. Integration of metabolism.

CR: Biochemistry 3106, 3206

PR: one of PHAR 2004, Biochemistry 2201 or the former 2101

3250 Pharmacy Practice III continues the acquisition, development, and application of the knowledge, skills, and attitudes necessary for pharmacy practice. The focus will include patient assessment, care plan development, counselling, follow-up, interprofessional collaboration, and communication with special patient populations. Application will occur in real and simulated pharmacy practice situations. Students must demonstrate skill proficiency in patient care, drug information, communication, professionalism, critical thinking, and teamwork at a level appropriate for the year of study to pass the course.

AR: attendance is required

CH: 5

CO: all Academic Term 4 Pharmacy courses

LC: 2

OR: practice sessions 3 hours per week

PR: PHAR 2251; Science 1807 and Science 1808

3251 Pharmacy Practice IV continues the acquisition, development, and application of the knowledge, skills, and attitudes necessary for pharmacy practice. This course will build on pharmacy practice concepts and will emphasize patient safety. Application will take place in simulated pharmacy practice situations. Students must demonstrate skill proficiency in patient care, drug information, communication, professionalism, critical thinking, and teamwork at a level appropriate for the year of study in order to pass the course.

AR: attendance is required

CH: 5

CO: all Academic Term 5 Pharmacy courses

LC: 2

OR: practice sessions 3 hours per week

PR: PHAR 3250; Science 1807 and Science 1808

3270 Pharmacotherapy I introduces pharmacotherapeutic management of common diseases and effective management of patients' drug therapy.

Emphasis will be placed on identifying drug therapy problems, establishing therapeutic outcomes, recommending pharmacological and non-pharmacological therapeutic alternatives, developing individualized therapeutic regimens, and developing a monitoring plan to evaluate adherence, efficacy, and safety. Topics may include drug interactions, gastroenterological conditions, musculoskeletal conditions, nutrition, and special populations.

CH: 5
CO: PHAR 3250, 3801, and 3805
LC: 5

3271 Pharmacotherapy II continues the discussion of pharmacotherapeutic management of common diseases and effective management of patients' drug therapy. Emphasis will be placed on identifying drug therapy problems, establishing therapeutic outcomes, recommending pharmacological and non-pharmacological therapeutic alternatives, developing individualized therapeutic regimens, and developing a monitoring plan to evaluate adherence, efficacy, and safety. Topics may include cardiovascular, dermatological, respiratory, and infectious diseases.

CH: 4
CO: PHAR 3251
LC: 4
PR: PHAR 3270, 3801, and 3805

3410 Leadership and Health Promotion focuses on the roles of leadership, advocacy, and health promotion in pharmacy to improve patient care. Insight into leadership skills and the roles of educating, advocating, and promoting health to patients, families, communities, and society will be discussed. The change process and the leader's role in change will be introduced.

3801 Pathophysiology I examines the nature of disease, causes and effects, and alterations in structure and function of cells. Topics may include cardiovascular, dermatological, gastrointestinal, and respiratory diseases.

CH: 2
CO: PHAR 3270 and 3805
LC: 2
PR: PHAR 2003

3805 Pharmacology I provides an introduction to the general principles of pharmacology including dose-response relationships, drug-receptor interactions, absorption, distribution, metabolism, and elimination of drugs. The focus will be on the pharmacological basis of the action of drugs leading to therapeutic effects, as well as adverse effects. Topics may include drugs used in the management of cardiovascular, gastrointestinal, respiratory diseases, and anti-inflammatory drugs.

CO: PHAR 3270 and 3801
PR: PHAR 2003

3810 Microbiology of Infectious Diseases examines the various types of micro-organisms (bacterial, viral, parasitic, and fungal), microbial growth, and their relationship to human diseases. The classifications of their morphology, mode of reproduction, and the metabolic process will be discussed.

CH: 2
LC: 2

3825 Medicinal Chemistry examines the functional group recognition and properties of drugs, drug-receptor interactions, structure activity relationships, and rational drug design. The relationship between the chemical structure of a drug and its binding affinity toward intended target enzymes or receptors, and its pharmacological activity, will be discussed.

CR: the former PHAR 3203 and the former 3204
PR: Chemistry 2401 and PHAR 3111

403W Structured Practice Experience III is a structured practice experience in community pharmacy after completion of the third year which will provide an opportunity for students to apply their technical skills and practice and participate in patient care activities. The practical experience is normally comprised of four weeks during May/June.

AR: attendance is required
CH: 0
LC: 0

PR: successful completion of all courses in Academic Terms 5 & 6 of the program

UL: applicable only to the Bachelor of Science (Pharmacy) program

406P Pharmacy Practice Experience II provides two weeks (80 hours) of practice experience in a hospital pharmacy practice setting. The focus will be on the operations of a hospital pharmacy, including drug distribution, policies and procedures, and communicating with other healthcare professionals. Students will apply their knowledge and skills in the provision of pharmacy services. Effective communication skills, professionalism, and teamwork are expected.

AR: attendance is required
CH: 1
PR: all Academic Term 7 & 8 courses

407P Pharmacy Practice Experience III provides four weeks (160 hours) of practice experience in a direct patient care setting. Emphasis will be on

continuing to develop patient care skills by working with a variety of patients and the healthcare team to appropriately identify, prevent, and resolve drug-related problems. Effective communication skills, professionalism, and teamwork, are expected.

AR: attendance is required
CH: 2

4250 Pharmacy Practice V continues the acquisition, development, and application of the knowledge, skills, and attitudes necessary for pharmacy practice. Critical appraisal, patient safety, and interprofessional collaboration will be emphasized. Application take place in simulated pharmacy practice situations. Students must demonstrate skill proficiency in patient care, drug information, communication, professionalism, critical thinking, and teamwork at a level appropriate for the year of study in order to pass the course.

AR: attendance is required in practice sessions
CH: 5
CO: all Academic Term 7 Pharmacy courses
LC: 2
OR: practice sessions 3 hours per week
PR: PHAR 3251; Science 1807 and Science 1808

4251 Pharmacy Practice VI continues the acquisition, development, and application of the knowledge, skills, and attitudes necessary for pharmacy practice. Sterile product preparation, drug information, patient safety, and calculations relevant to hospital practice will be introduced. Critical appraisal and interprofessional collaboration will continue. Application will take place in simulated pharmacy practice situations. Students must demonstrate skill proficiency in patient care, communication, professionalism, critical thinking, and teamwork at a level appropriate for the year of study to pass the course.

AR: attendance is required in practice sessions
CH: 5
CO: all Academic Term 8 Pharmacy courses
LC: 2
OR: practice sessions 3 hours per week
PR: PHAR 4250; Science 1807 and Science 1808

4270 Pharmacotherapy III continues the discussion of pharmacotherapeutic management of common diseases and effective management of the patient's drug therapy. Emphasis will be placed on identifying drug therapy problems, establishing therapeutic outcomes, recommending pharmacological and non-pharmacological therapeutic alternatives, developing individualized therapeutic regimens, and developing a monitoring plan to evaluate adherence, efficacy, and safety. Topics may include autoimmune, infectious, and musculoskeletal diseases.

CH: 4
CO: PHAR 4250, 4802, and 4810
LC: 4
PR: PHAR 3006, 3271, and 3810

4271 Pharmacotherapy IV continues the discussion of pharmacotherapeutic management of common diseases and effective management of patients' drug therapy. Emphasis will be placed on identifying drug therapy problems, establishing therapeutic outcomes, recommending pharmacological and non-pharmacological therapeutic alternatives, developing individualized therapeutic regimens, and developing a monitoring plan to evaluate adherence, efficacy, and safety. Topics may include cardiovascular, endocrine and renal disease, and women's and men's health.

CH: 6
CO: PHAR 4251
LC: 6
PR: PHAR 4270, 4802, and 4810

4420 Pharmacy Management I introduces the principles of management and leadership as they relate to pharmacy practice. Topics will include the pharmacy practice environment, human resources management, financial management, operations management, marketing, risk management, quality control and improvement, and effective communications.

4621 Applied Health Research I introduces the fundamentals of statistical methods and biostatistics, and other topics relevant to conducting and analyzing medical research.

4622 Applied Health Research II introduces the fundamentals of research design, methods, and appraisal necessary to develop the skills to analyze and interpret clinical research. Topics include randomized clinical trials, observational studies, and pharmaco-economic evaluations. Emphasis will be placed on making valid inferences about drug safety and effectiveness from scientific research. Principles of critically appraising the medical literature will be introduced.

PR: PHAR 4621

4802 Pathophysiology II examines the nature of disease, causes and effects, and alterations in structure and function of cells. Topics may include endocrine disorders, renal, rheumatological and neurological diseases, neoplasia, and women's and men's health.

CO: PHAR 4270 and 4810
PR: PHAR 3801

4810 Pharmacology II will focus on the pharmacological basis of the action

of drugs leading to therapeutic effects, as well as adverse effects. Topics may include drugs used in the management of infectious diseases, the endocrine system, and inflammatory diseases, as well as hormonal drugs and analgesics.

CH: 2
CO: PHAR 4270 and 4802
LC: 2
PR: PHAR 3006, 3805, and 3810

4820 Pharmacokinetics is an introduction to the biopharmaceutical and pharmacokinetic principles used in the selection, dosing, and monitoring of drug therapy. The concepts of absorption, distribution, metabolism and elimination, pharmacokinetic and pharmacodynamics mechanisms of drug interactions, and the importance of drug monitoring will be explored.

CH: 2
LC: 2
PR: PHAR 2202 and 3805

4860 Pharmacogenomics and Biotechnology provides insight into the development of biopharmaceuticals. Formulation, stability, dispensing, and clinical applications of biotechnology derived protein/peptide drugs will be discussed. The fundamental concepts of pharmacogenetics and pharmacogenomics will be explored. A focus will be on understanding how personalized drug therapy, based on the genetic profile of individuals, can optimize drug therapy and patient care.

CH: 2
LC: 2
PR: PHAR 2202 and 3111

4900 Clinical Skills I is an on-campus, three-day (21 hours) orientation to the fundamental knowledge and skills for advanced practice. Topics such as informatics, communication, and patient assessment may be explored. This course may commence outside the semester start and end dates.

AR: attendance is required
CH: 2
CO: PHAR 4901

UL: applicable only to the Doctor of Pharmacy for Working Professionals

4901 Essentials of Pharmacy Practice provides the foundational principles and skills of pharmacy practice such as the provision of patient-centred care, pharmacokinetics, and social justice. The pass grade is 60%.

CH: 4
CO: PHAR 4900

UL: applicable only to the Doctor of Pharmacy for Working Professionals

4902 Pharmacy Management and Leadership explores the principles of change management and leadership as they relate to pharmacy practice. Topics may include the business environment, financial management, continuous quality improvement, business marketing and promotion, human resources management, pharmacy services implementation, effective pharmacy operations, and technology in pharmacy practice. The pass grade is 60%.

CH: 2
UL: applicable only to the Doctor of Pharmacy for Working Professionals

4903 Evidence-Based Practice integrates advanced drug information and critical evaluation of the medical literature. Students will apply their knowledge of pharmacy practice research and evidence-based practice to inform therapeutic decision-making. The pass grade is 60%.

PR: PHAR 4900 and PHAR 4901

UL: applicable only to the Doctor of Pharmacy for Working Professionals

4910 Applied Learning I focuses on the application of leadership skills to implement change in practice through education and advocacy. Students will demonstrate their learning through the completion of applied learning activities at their practice sites. When numeric grading is used, the pass grade is 60%.

PR: PHAR 4902

UL: applicable only to the Doctor of Pharmacy for Working Professionals

500X Structured Practice Experience IV provides experience in clinical practice. Students will participate as members of the health care team. They will be responsible for providing pharmaceutical care to patients. Activities will include attending patient care rounds, providing in-services and drug information, and participating in case presentations. The structured practice experience is comprised of two six week modules.

AR: attendance is required

CH: 18
LC: 0

PR: successful completion of all course requirements for the degree and Clear Promotion

UL: applicable only to the Bachelor of Science (Pharmacy) program

508P Pharmacy Practice Experience IV provides two weeks (80 hours) of practice experience during Academic Term 11 in an institutional direct patient care setting. This course serves as a transition to the Advanced Pharmacy Practice Experience. Emphasis will be on developing independence in providing patient care under the mentorship of a preceptor or of an advanced practice pharmacy student. Effective communication skills, professionalism, and teamwork are expected.

AR: attendance is required

CH: 1

PR: all Academic Term 10 courses

5250 Pharmacy Practice VII continues the acquisition, development, and application of the knowledge, skills, and attitudes necessary for pharmacy practice. Critical appraisal, patient safety, and interprofessional collaboration will be emphasized. Students will be expected to demonstrate increased independence during the application of knowledge and skills in simulated pharmacy practice situations. Students must demonstrate skill proficiency in patient care, communication, professionalism, critical thinking, and teamwork at a level appropriate for the year of study in order to pass the course.

AR: attendance is required in practice sessions

CH: 5

CO: all Academic Term 10 Pharmacy courses

LC: 2

OR: practice sessions 3 hours per week

PR: PHAR 4251; Science 1807 and Science 1808

5251 Pharmacy Practice VIII is the final course in the series where students acquire, develop, and apply the knowledge, skills, and attitudes necessary for pharmacy practice. Application of knowledge and skills will occur in simulated pharmacy practice situations. Students must demonstrate skill proficiency in patient care, drug information, communication, professionalism, critical thinking, and teamwork at a level appropriate for the year of study in order to pass the course.

AR: attendance is required in practice sessions

CH: 4

CO: all Academic Term 11 Pharmacy courses

LC: 2

OR: practice sessions 3 hours per week; course runs over 10 weeks to accommodate PHAR 508P

PR: PHAR 5250; Science 1807 and Science 1808

5270 Pharmacotherapy V is the final course in the series that examines the pharmacotherapeutic management of common diseases and effective management of the patient's drug therapy. Emphasis will be placed on identifying drug therapy problems, establishing therapeutic outcomes, recommending pharmacological and non-pharmacological therapeutic alternatives, developing individualized therapeutic regimens, and developing a monitoring plan to evaluate adherence, efficacy, and safety. Topics may include neurological, oncological, and addictions and mental health conditions.

CH: 6

CO: PHAR 5815

LC: 6

PR: PHAR 4271

5271 Advanced Pharmacotherapy expands and integrates the knowledge and skills acquired from the Pharmacotherapy series of courses through application to complex patient scenarios. Critical thinking skills necessary for optimizing pharmacotherapy in a variety of patient care situations will be the focus of the course.

CH: 5

LC: 6

OR: course runs over 10 weeks to accommodate PHAR 508P

PR: PHAR 5270

5275 Symposium in Pharmacy is a forum for students to research, develop and deliver formal presentations related to pharmacy practice. Students will be expected to interpret, synthesize, and present information effectively. The presentations will allow for application of knowledge and reflection on content.

AR: attendance is required

CH: 2

CO: PHAR 5251

LC: 2

5430 Pharmacy Management II prepares students for the various roles of management in pharmacy practice, regardless of position or practice setting. Management principles including communications, leadership, finance, human resources management, marketing, and promotion will be applied through demonstrating leadership, business planning, and pharmacy service implementation.

CH: 2

LC: 2

PR: PHAR 4420

5640 Social Justice and the Pharmacist will enable students to critically analyse the role of social justice as an integral part of the practice of pharmacy. The course will include a focus on the interconnectedness of health equity with global contexts that include social class, ethnicity, gender, ability, and mental health. Critical thinking skills will be used to examine complex health and social issues.

CH: 2

LC: 2

5815 Pharmacology III is the final course in the series that focuses on the

pharmacological basis of the action of drugs leading to therapeutic effects, as well as adverse effects. Topics may include drugs used in the management of oncological, mental health, and neurological conditions as well as drugs of abuse.

CH: 2
CO: PHAR 5270
LH: 2
PR: PHAR 4810

5830 Applied Pharmacokinetics discusses pharmacokinetic principles of drug selection, dosing, and monitoring in the clinical setting for individualization of drug therapy.

CH: 2
LH: 2
PR: PHAR 4820

5901 Pharmaceutical Care I integrates the knowledge and skills necessary for the effective management of medication therapy in the provision of patient-centred care. Students will apply their knowledge of patient assessment, pharmacotherapy, and evidence-based practice to evaluate therapeutic options primarily for diseases of the cardiovascular system. The pass grade is 60%.

PR: PHAR 4900, 4901 4903
UL: applicable only to the Doctor of Pharmacy for Working Professionals

5902 Pharmaceutical Care II integrates the knowledge and skills necessary for the effective management of medication therapy in the provision of patient-centred care. Students will apply their knowledge of patient assessment, pharmacotherapy, and evidence-based practice to evaluate therapeutic options primarily for renal, digestive, and oncological diseases. The pass grade is 60%.

PR: PHAR 4900, 4901 4903
UL: applicable only to the Doctor of Pharmacy for Working Professionals

5903 Pharmaceutical Care III integrates the knowledge and skills necessary for the effective management of medication therapy in the provision of patient-centred care. Students will apply their knowledge of patient assessment, pharmacotherapy, and evidence-based practice to evaluate therapeutic options primarily for diseases of the protective, structural, and endocrine systems. The pass grade is 60%.

PR: PHAR 4900, 4901 4903
UL: applicable only to the Doctor of Pharmacy for Working Professionals

5904 Pharmaceutical Care IV integrates the knowledge and skills necessary for the effective management of medication therapy in the provision of patient-centred care. Students will apply their knowledge of patient assessment, pharmacotherapy, and evidence-based practice to evaluate therapeutic options primarily for respiratory and infectious diseases. The pass grade is 60%.

PR: PHAR 4900, 4901 4903
UL: applicable only to the Doctor of Pharmacy for Working Professionals

5905 Pharmaceutical Care V integrates the knowledge and skills necessary for the effective management of medication therapy in the provision of patient-centred care. Students will apply their knowledge of patient assessment, pharmacotherapy, and evidence-based practice to evaluate therapeutic options primarily for neurological disorders and mental health conditions. The pass grade is 60%.

PR: PHAR 4900, 4901 4903
UL: applicable only to the Doctor of Pharmacy for Working Professionals

5920 Applied Learning II focuses on the principles of medication safety, medication use evaluation, adverse drug events, and medication errors and incident reporting. Students will demonstrate their learning through the completion of applied learning activities at their practice sites. When numeric grading is used, the pass grade is 60%.

PR: PHAR 4903 and at least one of PHAR 5901, 5902, 5903, 5904, 5905
UL: applicable only to the Doctor of Pharmacy for Working Professionals

605P Advanced Pharmacy Practice Experience: Direct Patient Care is an eight week (320 hours) practice experience completed during the final year of the program (following Academic Term 11). Students will be expected to demonstrate leadership in the responsible provision of patient care by becoming an integral member of the healthcare team while confidently using clinical reasoning and critical thinking skills. Mentorship of junior students may be a component of this experience. Advanced Pharmacy Practice Experiences (APPE) may occur at any time during the academic year and may be offered in whole or in part outside the normal start and end dates of a semester.

AR: attendance is required
CH: 12
PR: all Academic Term 10 & 11 courses

606P Advanced Pharmacy Practice Experience: Acute Care Hospital is an eight week (320 hours) practice experience where patient care is provided in an acute care hospital setting and is completed during the final year of the program (following Academic Term 11). Students will be expected to demonstrate leadership in the responsible provision of patient care by becoming an integral member of the healthcare team while confidently using clinical reasoning and critical thinking skills. Mentorship of

junior students may be a component of this experience. Advanced Pharmacy Practice Experiences (APPE) may occur at any time during the academic year and may be offered in whole or in part outside the normal start and end dates of a semester.

AR: attendance is required
CH: 12
PR: all Academic Term 10 & 11 courses

607P Advanced Pharmacy Practice Experience: Community Pharmacy is an eight week (320 hours) practice experience where patient care is provided in a community pharmacy setting and is completed during the final year of the program (following Academic Term 11). Students will be expected to demonstrate leadership in the responsible provision of patient care by applying expanded scope of practice skills, as well as communicating and collaborating with patients, the pharmacy team, other health professionals, and the public while confidently using clinical reasoning and critical thinking skills. Mentorship of junior students may be a component of this experience. Advanced Pharmacy Practice Experiences (APPE) may occur at any time during the academic year and may be offered in whole or in part outside the normal start and end dates of a semester.

AR: attendance is required
CH: 12
PR: all Academic Term 10 & 11 courses

608P Advanced Pharmacy Practice Experience: Elective is a six week (240 hours) experience completed during the final year of the program (following Academic Term 11). The experience may occur in either a direct or non-direct patient care setting. Options include patient care, research, health policy, drug information, teaching/education, advocacy, and administration. Placements may vary from year to year depending upon site and preceptor availability. Advanced Pharmacy Practice Experiences (APPE) may occur at any time during the academic year and may be offered in whole or in part outside the normal start and end dates of a semester.

AR: attendance is required
CH: 9
PR: all Academic Term 10 & 11 courses

610P Advanced Pharmacy Practice Experience: Ambulatory Care is a six week (240 hours) practice experience completed during the final year of the program. Students will develop their medication therapy management skills and pharmaceutical care in an ambulatory care setting. Students will be expected to demonstrate leadership in the responsible provision of patient care by becoming an integral member of the healthcare team while confidently using clinical reasoning and critical thinking skills. Mentorship of junior students may be a component of this experience. Advanced Pharmacy Practice Experiences (APPE) may occur at any time during the academic year and may be offered in whole or in part outside the normal start and end dates of a semester.

AR: attendance is required
CH: 9
PR: PHAR 6900, 6930 and at least four of PHAR 5901, 5902, 5903, 5904, 5905
UL: applicable only to the Doctor of Pharmacy for Working Professionals

611P Advanced Pharmacy Practice Experience: Inpatient Care is a six week (240 hours) practice experience completed during the final year of the program. Students will develop the essential skills necessary to provide direct patient care in an inpatient setting. Students will be expected to demonstrate leadership in the responsible provision of patient care by becoming an integral member of the healthcare team while confidently using clinical reasoning and critical thinking skills. Mentorship of junior students may be a component of this experience. Advanced Pharmacy Practice Experiences (APPE) may occur at any time during the academic year and may be offered in whole or in part outside the normal start and end dates of a semester.

AR: attendance is required
CH: 9
PR: PHAR 6900, 6930 and at least four of PHAR 5901, 5902, 5903, 5904, 5905
UL: applicable only to the Doctor of Pharmacy for Working Professionals

6900 Clinical Skills II is an on-campus, three-day (21 hours) introduction to the Advanced Pharmacy Practice Experience component of the program. The focus will be on topics that enable students to practice to their full scope. Students will continue to demonstrate skills in communication, patient assessment, and documentation. This course may commence outside the semester start and end dates.

AR: attendance is required
CH: 2
CO: PHAR 6930
PR: PHAR 4900
UL: applicable only to the Doctor of Pharmacy for Working Professionals

6930 Applied Learning III focuses on the expansion of skills in patient assessment, communication, documentation, and interprofessional collaboration through the provision of patient-centred care. Students will demonstrate their learning through the completion of applied learning activities at their practice sites. When numeric grading is used, the pass grade is 60%.

CO: PHAR 6900
PR: PHAR 4910, 5920 and at least three of PHAR 5901, 5902, 5903,
5904, 5905

UL: applicable only to the Doctor of Pharmacy for Working Professionals

