



2021-2022

**Undergraduate  
Academic  
Calendar**



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# Pharmacy Practice and Our Faculty

## Historical Sketch

Pharmacy education in Ontario began 150 years ago with informal academic experiments tracing back to 1868. The Faculty of Pharmacy at the University of Toronto came into being July 1, 1953, when the University assumed responsibility for the school that had been operated by the Ontario College of Pharmacy (now Ontario College of Pharmacists) since 1882. A lineal descendant of the Canadian Pharmaceutical Society and its short-lived predecessor, the Toronto Chemists' and Druggists' Association, established in 1867, the Ontario College of Pharmacists (OCP) remains the provincial regulatory body of pharmacy; it oversees the internship program, called the Structured Practical Training (SPT), for registration as a pharmacist or pharmacy technician in Ontario. It contributes to the Faculty by ensuring that a representative of OCP is a member of the Faculty Council, the formal governing body of the Leslie Dan Faculty of Pharmacy at the University of Toronto.

The evolution of pharmaceutical education in Ontario shows a remarkable growth from a few evenings in 1868 of voluntary classes, with relatively no prerequisites, and with predominant emphasis upon a long, traditional apprenticeship controlled by a professional association, to the present compulsory, four-year second entry scientific and professional university program with supervised periods of extensive professional experiential education. The change is a significant one, for it represents the maturation of pharmaceutical education in Ontario from the nineteenth-century preoccupation with training for a trade by mastering primarily manual techniques, largely in the shop, to meet the current practice situation, to today's emphasis upon theoretical study embracing generalized principles whose application can, along with direct patient care experience, serve the future as well as the present needs of the citizens of Ontario and the profession. Also the importance of extensive experiential education has been recognized in academia. Students entering our new curriculum will receive more hands-on experiential training within many different practices than ever before. This includes the opportunity to provide direct patient care within interprofessional practices, working with many different health care professionals to optimize patient care.

The initiation of the first baccalaureate program by the Ontario College of Pharmacy in 1948 served as a natural and necessary prelude to the first graduate program, with the launching in 1953 of the MSc degree in pharmacy, and with the University now carrying the graduate and undergraduate teaching functions. The first affiliation of the College with the University came nearly six decades earlier in 1892, with primarily optional degree privileges being involved, while the first control of the University Senate over College examinations came in 1927, when certain courses were first taken by pharmacy students in University departments and the PhmB degree became mandatory.

Another consequence of University Faculty status for pharmacy was the move of the teaching college to a building on the University campus at 19 Russell Street in 1963 from facilities it had outgrown at 44 - 46 Gerrard Street East, facilities which when first opened in 1887 had been the first of their kind in Canada. The physical and symbolic move to the University campus coincided with the first arrangements for a student to earn a PhD degree at the University of Toronto with pharmacy as a major area of research. In 2006, the Faculty moved to a new larger building at 144 College Street, which is located in close proximity to other health science Faculties such as medicine, nursing and dentistry, and to many of the teaching institutions which together are called the Toronto Academic Health Sciences Network (TAHSN). This move allowed for significant growth in professional and graduate programs, a new Specialist Program in Pharmaceutical Chemistry and expansion of continuous professional development programs.

As the demands on the profession changed with changing health care needs of Ontario's citizens, so did professional education. Recognizing the growing need for graduates with additional clinical experience and greater preparation in pharmacotherapeutics, the Faculty introduced a post-baccalaureate Doctor of Pharmacy (PharmD) degree in 1992. This was a two-year full-time program, which combined didactic in-class work with experiential education. In 2004, a distance learning on a part-time basis version of this program was introduced; this was the first of its kind in Canada. In 2011, a combined Bachelor of Science in Pharmacy and Post Baccalaureate Doctor of Pharmacy program was established for a three-year period, to allow undergraduates students at the Leslie Dan Faculty of Pharmacy who had completed three years of the Bachelor of Science in Pharmacy program to graduate with both a BScPhm and PharmD degree.

The baccalaureate (BScPhm) program itself changed in 1994, when entering students were required to have a minimum of one year of university course work as a prerequisite for admission. This prerequisite education was extended to two years in 2011, which allowed for a significant change in the curriculum with more clinical pharmacy practice based course work. Along with the change in admissions, starting in September 2011, a new four-year, second-entry, professional program was implemented, with new courses in pharmacotherapy, medication therapy management, and experiential education, becoming the core of the curriculum. This new professional curriculum formally received approval by the

Ministry of Training, Colleges and Universities as the entry-to-practice Doctor of Pharmacy (PharmD) degree in January 2013. This professional program emphasizes understanding and applying the concept of 'patient-centred care' throughout its four years and culminates with 35 weeks of clinical experiential rotations undertaken in a variety of practice sites including hospitals, clinics, and community pharmacies. The first cohort in this new program graduated with a PharmD degree in June 2015.

Also, in 2013, the post-baccalaureate PharmD program evolved to become the PharmD for Pharmacists program, providing pharmacists with a BScPhm the opportunity to graduate with a PharmD degree. This flexible and customizable program can be undertaken on a part-time basis and through distance learning.

## Deans, Ontario College of Pharmacy

E.B. Shuttleworth, 1882 -1891	R.O. Hurst, 1937 - 1952
A.Y. Scott, 1891 - 1892	F.N. Hughes, 1952 - 1953
C.F. Heebner, 1892 - 1937	

## Assistant Dean, Ontario College of Pharmacy

F.N. Hughes, 1948-1952
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## Deans, Faculty of Pharmacy

F.N. Hughes, 1953 - 1973	R. Bendayan, Acting, January - June 2007
W.E. Alexander, 1974 - 1978	H.J. Mann, 2009 - 2013
E.W. Stieb, Acting, 1978 - 1979	H. Boon, Interim, July 2013 - June 2014
R.M. Baxter, 1979 - 1985	H. Boon, July 2014 - June 2018
E.W. Stieb, Acting, July - December 1985	C.J. Allen, Interim, July 2018 - June 2019
D.G. Perrier, 1986 - 1998	L. Dolovich, Interim, July 2019 - June 2020
E.W. Stieb, Acting, August 1993 - January 1994	L. Dolovich, July 2020 -
K.W. Hindmarsh, 1998 - 2009	

## Associate Deans

G.C. Walker, 1970 - 1977	C.J. Allen, Interim, January - December 2011
E.W. Stieb, 1978 - 1994	L. Raman-Wilms, Interim, January - December 2011
J.P. Uetrecht, 1994 - 1998	C.J. Allen, January - August 2012
J.J. Thiessen, 1999 - 2005	H. Boon, 2012 - June 2013
D.M. Grant, 2002 - 2005	L. Raman-Wilms, 2012 - June 2017
L. Lavack, 2005 - 2010	I. Crandall, Interim, January - December 2013
R.B. Macgregor, 2005 - 2010	C.J. Allen, Interim, September 2013 - June 2014
R. Bendayan, 2007 - 2011	C.J. Allen, July 2014 - June 2015
Z. Austin, 2009 - 2010	S. Angers, July 2015 - August 2021
H. Boon, Acting, January - December 2010	J. Kellar, November 2020 -
R.M. Reilly, 2010 - June 2015	M. Piquette-Miller, November 2021 -

## Assistant Deans

E.W. Stieb, 1975 - 1978	C.Y. MacNeil, 2006 - 2011
L. Lavack, 1994 - 2005	T.E.R. Brown, 2007 - 2010
M. Nawrocki, 2001 - 2007	D.M. White, 2007 - February 2017
K.A. Boyd, 2005 - 2006	M. Bystrin, 2013 - 2014

## Faculty Secretaries/Registrars

H.M. Corbett, 1953 - 1959	H.J. Ditzend, 1985 - 2001
F.M. Ward, 1959 - 1973	B.A. Thrush, 2001 -
H.M. Walton, 1973 - 1985	

## The Evolution of the Profession of Pharmacy

With the advent of large-scale industrial processes to produce high quality drugs and dosage forms, the focus of the pharmacist's primary role changed in the middle of this century from that of accurate compounding to one of dispensing medications manufactured by the pharmaceutical industry. During this time the scientific basis of industrial drug discovery and development inspired parallel changes in pharmacy education, from empirical and descriptive knowledge focusing on the procurement, preparation, and evaluation of pharmaceuticals, to knowledge organized around scientific paradigms. The resulting divergence of pharmacy practice and pharmacy education led inevitably to a vocational paradox: the average pharmacist, trained as a scientist, did not "do" science in practice.

The concept of clinical pharmacy emerged in the late 1960s as society's economic base changed from industry to information. Within this model, the pharmacist was to function as a therapeutic consultant: the member of the health care team able to apply knowledge, skills, and values to ensure optimal drug use. In spite of this change, research evidence indicated that a significant percentage of North Americans were not receiving maximum benefit from drug therapy, resulting in adverse drug reactions, sometimes leading to hospital admissions and causing mortality.

In 1990 a new model of Pharmacy practice proposed that the pharmacist accept responsibility for minimizing drug-related morbidity and mortality. Termed Pharmaceutical Care, a patient-centred practice model, requires the pharmacist to work in partnership with the patient and other health care professionals to:

- identify actual or potential drug-related needs of the patient;
- determine how these needs are related to patient's drug therapy, and;
- work with patients and other health care providers to design, implement, and monitor a pharmacy care plan which will resolve and/or prevent patients' resulting drug therapy problems.

Therefore, the profession of pharmacy serves society by being responsible for the optimal use of drugs – this is done by ensuring that all of a patient's medications are indicated, effective, safe and that the patient is able to adhere to therapy. In assuming this responsibility, each pharmacist's primary responsibility is to individual patients, with the ultimate goal of improving each patient's quality of life. This patient centred care is achieved by working with the patient to determine if any drug-related needs exist which are preventing the patient from attaining their desired goals related to drug therapy and then working with the patient and their healthcare providers to ensure that their health care goals are met.

## Changes in Pharmacy Education

The PharmD program at the Leslie Dan Faculty of Pharmacy was developed to provide pharmacy students with the knowledge, skills and values needed to provide pharmaceutical care. Although the traditional lecture format is still employed, a significant portion of the curriculum focuses on the acquisition of skills through the use of problem-based, student-centred learning. Students are taught to identify, research and solve drug therapy problems both independently and as members of groups. This learning model enables students to acquire such skills as problem-solving, self-directed learning, critical appraisal, communication and self-evaluation. Learning groups also provide the opportunity for students to develop the necessary skills of assertiveness, delegation, leadership and compromise. Lastly, as drug therapy problems may not have simple solutions, our students require the maturity to cope with the demands of this challenging approach to education.

## The Practice of Pharmacy

In earliest times, pharmacy was closely interwoven with medicine to the extent that one person usually carried out both functions. As both professions matured, the need for separate specialties became clear, although it remained equally clear they would need to retain close professional relationships for the greatest benefit to the patient. Although, typically the physician or another health professional may prescribe drugs and the nurse may administer drugs, the pharmacist is the member of the health care team whose expertise is related to the appropriate use of medications.

The primary role of a pharmacist is to assure that the medications used by the patient are the most appropriate: that they are indicated for the patient, they are effective and safe, and that the patient is able to take it. This is done by working in partnership with the patient and in collaboration with the patient's other health care providers. Over the last few years the pharmacist's scope of practice has continued to expand and, in addition to optimizing patients' medications, many pharmacists can now administer influenza vaccination injections, prescribe medications to help patients stop smoking, and provide unique health services such as specialized monitoring of drug therapy for those with diabetes and those on anticoagulant medications such as warfarin.

Pharmacists practice in a wide variety of practice sites within the health care field. The majority of licensed pharmacists work in community pharmacies where they have responsibility for the medication and healthcare needs of individuals in their community who seek their services. There are also many other exciting areas of practice for pharmacists today. Licensed pharmacists may also work in hospitals, in clinics and other ambulatory care settings, or in research and teaching, in the pharmaceutical industry and government laboratories. Hospital pharmacists are primarily responsible for assuring the appropriate use of medicines by institutionalized patients, and also may be involved in the development of institutional guidelines for use of medicines. Research-focused pharmacists are generally involved in the development of new medicines and dosage forms, in the determination of how medicines alleviate disease, and in the assessment of the social and economic factors influencing the use of medicines. As professors/teachers they may be involved in the education of pharmacy students and pharmacy technicians. Industrial pharmacists might work in sales, drug information, regulatory affairs, production, quality control or research within the pharmaceutical industry. Government departments with public health concerns also employ pharmacists in analytical or toxicology laboratories, as inspectors, health supplies officers or in the armed forces. These areas are outlined more fully under the following headings:

### Community Pharmacy

Since its beginning, pharmacy has been practised in the community environment. Although other types of pharmacy practice have evolved from community pharmacy, a majority of pharmacy graduates still find their "place of practice" in a community setting.

The community pharmacist is an important member of the health care team and, as well, a part of the business community. As such, the requirements of community practice include both professional capability, and management and marketing skills, with an understanding of competitive enterprise.

The community pharmacist has a thorough knowledge of all medications including prescription drugs, non-prescription products such as cold remedies, vitamins, pain medications and herbal products, designed for self-medication. Being the most readily accessible health care professional and seen most often by the public, the community pharmacist needs to be able to meet patient needs by assuring the proper use of all drugs and related products. Today, many community

pharmacists provide extensive health services, such as monitoring patients on medications for diabetes and providing annual influenza vaccinations.

Many community pharmacists also offer additional professional services such as surgical and home care supplies, self-diagnostic machines and kits and athletic supplies. Community pharmacists can practice, as well, in personal care or extended care homes and specialize in areas such as geriatric pharmacy. Clear and knowledgeable communication is important in each area of community pharmacy practice.

The professional capability of the community pharmacist is further enhanced by electronic documentation of patient records, which enables pharmacists to maintain patient specific information and the ability to assess the appropriateness of both over-the-counter and prescribed medications. Pharmacy technicians, who are regulated health professionals, assist the pharmacist in preparing the prescribed medications, enabling pharmacists to effectively fulfill their professional role as medication consultants.

## **Hospital Pharmacy**

The general responsibilities are very similar to those of a community pharmacist but the hospital pharmacy department is only one of several units serving the patient. The hospital pharmacist provides optimum care to the patient by: assessing and monitoring the patient's drug therapy and by the provision of drug information to patients and to other health professionals. Pharmacists in hospitals are also involved in the selection and purchase of drugs to be used in the hospital, the method by which these drugs are distributed, and preparation of intravenous solutions.

The hospital pharmacist provides patient care at various locations throughout the hospital: on the ward or unit where the patient is, in an outpatient clinic where the patient visits, through patient education seminars, and as an active member of the patient's interdisciplinary health care team.

Hospital pharmacists work collaboratively with physicians, nurses and other health care professionals to provide patient care. They may be involved in determining patients' drug related needs while in the hospital, in educating patients about their medications before they are discharged, as well as monitoring drug therapy while in, and after leaving the hospital. Many hospital pharmacists work with the patient and their community pharmacist, to ensure that appropriate changes to medications are communicated to the community pharmacist, to enable patients to optimally use their medicines.

## **Pharmaceutical Industry**

The Pharmaceutical industry in Canada is engaged in the research, development, production and marketing of modern drugs. The pharmacist working in industry may act as a liaison with government or may be involved in providing drug information and technical correspondence, or may be responsible for the preparation of educational materials to both the public and health care professionals, or take part in research. Some pharmacists in industry act as pharmaceutical sales representatives presenting drug information to physicians and pharmacists. It is possible for pharmacy graduates to find many positions in industry but specialty areas such as the research and development of new drugs may require postgraduate degrees.

## **Government Services**

Interesting careers in pharmacy are available in government agencies at the local, provincial and federal levels. The armed forces also provide positions for pharmacists in military hospitals both in Canada and overseas. Pharmacists are commissioned as officers and may hold a rank from second lieutenant to lieutenant colonel.

Both provincial and federal governments require pharmacists to monitor the distribution of schedule drugs (poisons, narcotics, etc.) and administer various drug plans and health care programs. Health Canada (Therapeutic Products Directorate), the Provincial Ministries of Drug Program Branches and Forensic laboratories employ pharmacists in a variety of capacities.

## **Education and Research**

Careers in pharmaceutical education combine teaching with research and administrative activities. Most positions in education require a PharmD or a PhD degree; however, there are a few roles for BScPhm and Masters trained pharmacists. Many community and hospital pharmacists participate in the educational programs of the Faculty as clinical

teaching assistants or provide classroom instruction in their specialty areas of practice. A particularly important role is their involvement with the training of pharmacy students during their experiential education rotations.

## Additional Areas of Opportunity

Other areas open to pharmacists with particular interests or abilities include executive or administrative work in professional pharmaceutical organizations at the provincial and national level. There are also positions available within provincial licensing and regulatory bodies as inspectors and executives.

Some pharmacists work within healthcare organizations and others combine their pharmaceutical background with other professional endeavours such as law or business administration.

Pharmacists with good communication skills will find many opportunities to participate in professional relations and continuing education programs presented to groups ranging from school children to service clubs and health specific organizations, as well as to other health professionals.

*Acknowledgement and appreciation is extended to the Canadian Foundation for Pharmacy from whom some of the above description was obtained.*

## Degrees

The programs offered at the Leslie Dan Faculty of Pharmacy lead to the following degrees:

- Doctor of Pharmacy – PharmD
- Master of Science in Pharmacy – MScPhm
- Master of Science – MSc
- Doctor of Philosophy – PhD

Information on the programs offered is available on the Faculty's website as follows:

- Doctor of Pharmacy (PharmD): <https://pharmacy.utoronto.ca/programs/doctor-pharmacy-pharmd>
- PharmD for Pharmacists (PharmD): <https://pharmacy.utoronto.ca/programs/pharmd-pharmacists>
- Master of Science in Pharmacy (MScPhm): <https://pharmacy.utoronto.ca/programs/graduate-department-pharmaceutical-sciences/master-science-pharmacy-mscphm>
- Master of Science in Pharmaceutical Sciences (MSc): <https://pharmacy.utoronto.ca/programs/graduate-department-pharmaceutical-sciences/master-science-pharmaceutical-sciences-msc>
- Doctor of Philosophy in Pharmaceutical Sciences (PhD): <https://pharmacy.utoronto.ca/programs/graduate-department-pharmaceutical-sciences/phd-pharmsci>

## Accreditation Status

The Doctor of Pharmacy program of the Leslie Dan Faculty of Pharmacy at the University of Toronto has been awarded accreditation status by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) for a six-year term ending June 30, 2026.

On March 25, 2020 the CCAPP Board approved an extension of the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) accreditation status of the PharmD for Pharmacists Program at the University of Toronto to December 31, 2023.

# Faculty and Administrative Officers

## Academic Administrative Officers

Dean: L. Dolovich  
 Associate Dean, Academic: J. Kellar  
 Associate Dean, Research: M. Piquette-Miller  
 Director, PharmD Program: N. Crown  
 Director, PharmD for Pharmacists Program: K. Vu  
 Director, Pharmaceutical Chemistry Program: D. Dubins  
 Director, Graduate Department of Pharmaceutical Sciences: C. Cummins  
 Academic Directors, International Pharmacy Graduate Program: J. Hunchuck and L. Zhu  
 Director, Centre for Practice Excellence: Z. Austin  
 Director, Centre for Pharmaceutical Oncology: R. Reilly  
 Coordinator, Hospital Pharmacy Residency Programs: H. Halapy  
 Coordinator, Industrial Pharmacy Residency Programs: M. Gautam  
 Field Coordinator, Clinical, Social and Administrative Pharmaceutical Sciences Field, Graduate Department of Pharmaceutical Sciences: A. Thompson  
 Field Coordinator, Biomolecular Pharmaceutical Sciences Field, Graduate Department of Pharmaceutical Sciences: M. Piquette-Miller

## Administrative Officers

Chief Administrative Officer: A. DiMarcantonio  
 Faculty Registrar: B. Thrush  
 Finance Director: N. Boamong  
 Director, Advancement: S. Drodge  
 Director, Communications: K. Richards  
 Director, Education Programs and Administrative Services: L. Singh  
 Director, Facilities Management: C. Harvey-Kane  
 Director, Information and Learning Technology: A. Trent  
 Director, Office of Experiential Education: M. James  
 Manager, Administrative Operations: T. Snyder  
 Manager, Research Administration: M. Folinas

## Chairs

The Murray B. Koffler Chair in Pharmacy Management: Z. Austin  
 Canada Research Chair in Sensory Plasticity and Reconsolidation: R. Bonin  
 Ontario College of Pharmacists Professorship in Pharmacy Practice: L. Dolovich  
 Canada Research Chair in Collaborative Healthcare Practice: TBD  
 Canada Research Chair in Synthetic Biology and Human Health: K. Pardee  
 F. Norman Hughes Chair in Pharmacoeconomics: TBD

## Professors Emeriti

Bowen, B., B.SC.PHM., M.SC.PHM.(TOR.)  
 Einarson, T.R., B.SC.PHM.(MAN.), M.SC., PH.D.(ARIZONA)  
 Marshman, J.A., B.SC.PHM.(TOR.), M.SC.(MCMASTER), PH.D.(TOR.)  
 MacKeigan, L.D., B.SC.PHM.(TOR.), PH.D.(ARIZONA)  
 Nairn, J.G., B.SC.PHM.(TOR.), PH.D.(BUFFALO)  
 O'Brien, P.J., B.SC.(LONDON), M.SC., PH.D.(BIRMINGHAM)  
 Pennefather, P., B.SC.(MCGILL), PH.D.(B.C.)  
 Robinson, J.B., B.SC.(PHARM.), M.SC., PH.D.(MANCHESTER)  
 Segal, H.J., B.SC.(PHARM.)(MAN.), M.S., PH.D.(PURDUE)  
 Thiessen, J.J., B.SC.(PHARM.), M.SC.(MAN.), PH.D.(CALIF.)

## Associate Professor, Teaching Stream Emerita

Sweezey, A., B.SC.PHM., M.B.A.(TOR.)

## University Professor

Kelley, S., B.A.(SETON HALL), PH.D.(CALIF.)

## Professors

Allen, C.J., B.SC.(OTTAWA), PH.D.(MCGILL)  
 Angers, S., B.SC.(MCGILL), PH.D.(MTL.)  
 Austin, Z., B.SC.PHM., B.A., M.B.A., M.I.S., PH.D.(TOR.)  
 Bendayan, R., B.SC.PHM.(MTL.), PHARM.D.(FLA.)  
 Boon, H., B.SC.PHM., PH.D.(TOR.)  
 Chalikian, T., B.S., M.S.(ARMENIA), PH.D.(USSR)  
 Dolovich, L., B.SC.PHM., PHARM.D.(TOR.)  
 Hampson, D.R., B.S.(BIOL.)(SUNY), M.SC.(UTAH), PH.D.(ALTA.)  
 Kohler, J.C., B.A., M.A.(MCGILL), PH.D.(NY)  
 Kotra, L.P., PH.D.(GEORGIA)  
 Lee, P.I., B.S.(TAIWAN), PH.D.(MICH.)  
 Macgregor, R.B., B.S.(BIOCHEM.)(MICH.STATE), PH.D.(BIOCHEM.)(ILLINOIS)  
 Pang, K.S., B.SC.PHM.(TOR.), PH.D.(CALIF.)  
 Piquette-Miller, M., B.SC.PHM., PH.D.(ALTA.)  
 Reilly, R.M., B.SC.PHM., M.SC.PHM., PH.D.(TOR.)  
 Taddio, A., B.SC.PHM., M.SC., PH.D.(TOR.)  
 Uetrecht, J.P., B.S.(CHEM.), M.SC., PH.D.(CORNELL), M.D.(OHIO)  
 Wells, J.W., B.SC.PHM., M.SC.PHM., PH.D.(TOR.)  
 Wells, P.G., B.SC.(PHM.)(DALH.), PHARM.D.(MINN.)  
 Wu, X.Y., B.SC., M.SC.ENG.(CHINA), PH.D.(MCMaster)

## Associate Professors

Brown, T.E.R., B.SC.PHM.(TOR.), PHARM.D.(WAYNE)  
 Cadarette, S., B.SC.(WATERLOO), M.SC., PH.D.(TOR.)  
 Crandall, I., B.SC., M.SC.(QUEEN'S), PH.D.(OXFORD)  
 Cummins, C.L., B.SC.(MCGILL), PH.D.(CAL.)  
 Grootendorst, P.V., B.A.(U. VICTORIA), M.A.(QUEEN'S), PH.D.(MCMaster)  
 Henderson, J.T., B.A.(CALIF.), PH.D.(ILLINOIS)  
 Thompson, A., B.A.(DALH.), M.A.(UBC), PH.D.(TOR.)

## Assistant Professors

Bonin, R., B.SC.(MCMaster), PH.D.(TOR.)  
 Guilcher, S., B.SC.(MTA), M.SC.PT.(TOR.), M.SC.(WESTERN), PH.D.(TOR.)  
 Pardee, K., B.SC.(ALTA.), M.SC.(UBC), PH.D.(TOR.)

## Associate Professors, Teaching Stream

Arora, V., B.SC.PHM.(TOR.), PHARM.D.(WAYNE), M.ED.(TOR.)  
 Dubins, D., B.A.SC., PH.D.(TOR.)  
 Kellar, J., B.SC.PHM., PHARM.D.(TOR.)  
 Lee, A., B.SC.PHM.(TOR.), M.SC.(T)(MCMaster)  
 Rocchi, M.A., B.SC.PHM.(TOR.), M.ED.(ATHABASCA)  
 Sibbald, D., B.SC.PHM., M.A., PH.D.(TOR.)

## Assistant Professors, Teaching Stream

Ahmad, J., B.SC.PHM.(TOR.)  
 Bjelajac Mejia, A., B.SC.(NEU), PHARM.D.(MUSC)  
 Cameron, K., B.SC.PHM.(TOR.)  
 Croteau, D., B.SC.PHM., M.ED.(SASK.)  
 Crown, N., B.SC.PHARM.(DALH.), PHARM.D.(TOR.)  
 Erclik, M.S., B.SC., PH.D.(TOR.)  
 Ferrara, L., B.SC.PHM.(TOR.)  
 Ho, C., B.SC.PHM., M.ED., PH.D.(TOR.)  
 Kwan, D., B.SC.PHM., M.SC.(TOR.)  
 Lake, J., B.SC., B.SC.PHARM.(DALH.), PHARM.D.(TOR.)  
 McLean, M.K., B.SC.H.(QUEEN'S), B.SC.PHM., M.P.H.(TOR.)  
 Sklierenko, T., B.SC.(TOR.), PHARM.D.(BUFFALO)  
 Steenhof, N., B.SC.PHM.(TOR.)  
 Swanson, A., B.SC.PHM., PHARM.D.(TOR.)  
 Tan, K., B.SC.PHM.(TOR.)  
 Vu, K., B.SC.(YORK), B.SC.PHM.(TOR.), PHARM.D.(COLORADO)

## Clinician Scientists

Battistella, M., B.SC.PHM.(TOR.), PHARM.D.(IDAHO)  
 Burry, L., B.SC.PHM.(MEMORIAL), PHARM.D.(TOR.)  
 De Angelis, C., B.SC.PHM.(TOR.), PHARM.D.(SUNY)  
 Dupuis, L.L., B.SC., B.SC.PHM., M.SC.PHM.(TOR.), PH.D.(AMS)  
 McCarthy, L., B.SC.PHM., PHARM.D.(TOR.)  
 Sproule, B.A., B.SC.PHM.(TOR.), PHARM.D.(WAYNE)

## Clinician Educator

Zhang, M., B.SC.PHM., PHARM.D., M.SC.(TOR.)

## Librarian

Bradley-Ridout, G., HONS B.A., M.I.(TOR.)

## Professors – Status

Gariepy, J.; Heerklotz, H.H.; Kanfer, I.; Krahn, M.; Mamdani, M.; Melacini, G.; Spino, M.; Walker, S.E.; Weaver, D.F.; Zheng, G.

## Associate Professors – Status

Ancuta, P.; Bartle, W.; Chen, E.X.; Hardy, B.; Hoch, J.; Hollis, A.; Musing, E.; Poole, J.; Routy, J-P.; Tseng, A.

## Assistant Professors – Status

Aman, A.; Ballantyne, P.; Bucci, C.; Chit, A.; Daneman, N.; De Lannoy, I.A.M.; Dresser, L.; Facey, M.; Fernandes, O.A.; Gallo-Hershberg, D.; Gomes, T.; Harrison, J.; Kertland, H.; Knowles, S.; Leblanc, K.; Leis, J.; MacLeod, A.; Mills, A.; Ong, S.; Papadimitropoulos, M.; Papastergiou, J.; Poda, G.; Rac, V.; Seki, J.; Seto, W.; So, M.; Tadrous, M.; Tsang, Y.C.; Walker, S.; Wong, G.; Wong, W.W.L.; Woods, A.; Yamashita, S.

## Adjunct Professors

Chan, T.; Chant, C.; Fung, J.; Jackson, L.; Lum Wilson, N.; Rolko, E.; Spagnoli, M.; Sullivan, M.

## **Adjunct Lecturers**

Al-Sukhni, M.; Badr, S.; Boodhan-Teskey, S.; Carter, A.A.; Chan, J.; Chang, W.C.; Chen, J.; Cheng, D.; Chiu, J.; Dara, C.; Dewhurst, N.; Dhalla, S.; Dyer, S.; Fan-Lun, C.; Gautam, M.; Hack, F.; Halapy, H.; Ho, L.; Hunchuck, J.; Hutton, L.; Ingram, S.; Jacques, A.; Lalani, A.; Le, M-H.; Lee, M.; Leung, M.; Mah, W.C.; Nakhla, N.; Natsheh, C.; Ng, O.; Palmay, L.; Palmer, K.; Pojskic, N.; Satchu, S.; Summa-Sorgini, C.; Teo, V.; Tjon, J.; Tomas, M.; Tsang, J.; Whitty, R.

## **Sessional Lecturers**

### **Fall Term**

Al-Joudi, F.; Al-Saden, N.; Brunt, A.; Burman, D.; Ganesh, T.; Hamandi, B.; Leung, C.; McIntyre, M.; Sun, H.S.

### **Winter Term**

Brunt, A.; Bytautas, J.; Leung, E.; MacLeod-Glover, N.; Redka, R.; Riss, V.; Yau, S.; Zhu, L.

# Regulations and Policies

## Important Notices

The university is required to report student-level enrolment-related data to the Ministry of Training, Colleges and Universities as a condition of its receipt of operating grant funding. The Ministry collects this enrolment data, which includes limited personal information such as Ontario Education Numbers, student characteristics and educational outcomes, in order to administer government postsecondary funding policies and programs, including planning, evaluation and monitoring activities.

## Changes in Programs of Study and/or Courses

The programs of study that our calendar lists and describes are available for the year(s) to which the calendar applies. They may not necessarily be available in later years. If the University or the Faculty must change the content of programs of study or withdraw them, all reasonable possible advance notice and alternative instruction will be given. The University will not, however, be liable for any loss, damages, or other expenses that such changes might cause.

For each program of study offered by the University through the Faculty, the courses necessary to complete the minimum requirements of the program will be made available annually. We must, however, reserve the right otherwise to change the content of courses, instructors and instructional assignments, enrolment limitations, pre-requisites and co-requisites, grading policies, requirements for promotion and timetables without prior notice.

## Regulations and Policies

As members of the University of Toronto community, students assume certain responsibilities and are guaranteed certain rights and freedoms. The University has several policies that are approved by the Governing Council and which apply to all students. Each student must become familiar with the policies. The University will assume that he or she has done so. The rules and regulations of the Faculty are listed in this calendar. In applying to the Faculty, the student assumes certain responsibilities to the University and the Faculty and, if admitted and registered, shall be subject to all rules, regulations and policies cited in the calendar, as amended from time to time. All University policies can be found on the Office of the Governing Council website at [http://www.governingcouncil.utoronto.ca/Governing\\_Council/policies.htm](http://www.governingcouncil.utoronto.ca/Governing_Council/policies.htm). Those which are of particular importance to students are: Code of Behaviour on Academic Matters; Code of Student Conduct; University Assessment and Grading Practices Policy; and Policy on Official Correspondence with Students. More information about students' rights and responsibilities can be found at <http://life.utoronto.ca/get-help/rights-responsibilities/>.

## Enrolment Limitations

The University makes every reasonable effort to plan and control enrolment to ensure that all of our students are qualified to complete the programs to which they are admitted, and to strike a practicable balance between enrolment and available instructional resources. Sometimes such a balance cannot be struck and the number of qualified students exceeds the instructional resources that we can reasonably make available while at the same time maintaining the quality of instruction. In such cases, we must reserve the right to limit enrolment in the programs, courses, or sections listed in the calendar, and to withdraw courses or sections for which enrolment or resources are insufficient. The University will not be liable for any loss, damages, or other expenses that such limitations or withdrawals might cause.

## Copyright in Instructional Settings

If a student wishes to tape-record, photograph, video-record or otherwise reproduce lecture presentations, course notes or other similar materials provided by instructors, he or she must obtain the instructor's written consent beforehand. Otherwise all such reproduction is an infringement of copyright and is absolutely prohibited. Note that where such permission is granted by the instructor, materials reproduced are for the student's individual private use only, not for further reproduction or publication. In the case of private use by students with disabilities, the instructor's consent will not be unreasonably withheld.

## Person I.D. (Student Number)

Each student at the University is assigned a unique identification number. The number is confidential. The University, through the Policy on Access to Student Academic Records, strictly controls access to Person I.D. numbers. The University assumes and expects that students will protect the confidentiality of their Person I.D.'s.

## Fees and Other Charges

The University reserves the right to alter the fees and other charges described in this calendar.

## Freedom of Information and Privacy Act

The University of Toronto respects your privacy. Personal information that you provide to the University is collected pursuant to section 2(14) of the University of Toronto Act, 1971. It is collected for the purpose of administering admissions, registration, academic programs, university-related student activities, activities of student societies, safety, financial assistance and awards, graduation and university advancement, and reporting to government. In addition, the Ministry of Training, Colleges, and Universities has asked that we notify you of the following: The University of Toronto is required to disclose personal information such as Ontario Education Numbers, student characteristics and educational outcomes to the Minister of Training, Colleges and Universities under s. 15 of the Ministry of Training, Colleges and Universities Act, R.S.O. 1990, Chapter M.19, as amended. The ministry collects this data for purposes such as planning, allocating and administering public funding to colleges, universities and other post-secondary educational and training institutions and to conduct research and analysis, including longitudinal studies, and statistical activities conducted by or on behalf of the ministry for purposes that relate to post-secondary education and training. Further information on how the Minister of Training, Colleges and Universities uses this personal information is available on the ministry's website. At all times it will be protected in accordance with the Freedom of Information and Protection of Privacy Act. If you have questions, please refer to [www.utoronto.ca/privacy](http://www.utoronto.ca/privacy) or contact the University Freedom of Information and Protection of Privacy Coordinator at McMurrich Building, Room 104, 12 Queen's Park Crescent West, Toronto, ON, M5S 1A8.

## Obligations of a Registered Student

By enrolling in courses, a student agrees to abide by all of the academic and non-academic policies, rules and regulations of the University and of his or her academic division, as set out in the divisional calendar. Students confirm responsibility for payment of associated fees, and agree to ensure that the accuracy of personal information such as current mailing address, telephone number, and utoronto.ca e-mail address is maintained.

A student's registration is not complete until he or she has paid tuition and ancillary/incidental fees, or has made appropriate arrangements to pay. Students who defer fee payment, or whose payment is deferred pending receipt of OSAP or other awards, acknowledge that they continue to be responsible for payment of all charges, including any service charges that may be assessed. For details see the Student Accounts web site at <https://studentaccount.utoronto.ca/>.

## Post-Admission Requirements

### Experiential Placement Requirements

Students must comply with immunization, CPR, first aid, mask fit testing, and OCP registration requirements (items A to E). Students who have not complied with these requirements will not be permitted to proceed to experiential placements (i.e., EPE-1, EPE-2, APPE). In addition, any site-specific requirements such as a Police Record Check/Vulnerable Sector Screening must be completed in order to proceed to experiential placements (see section F below). Please review the Office of Experiential Education website for the most up-to-date information on these requirements (<https://www.pharmacy.utoronto.ca/current-students/pharmd/office-experiential-education-oe>). Students will be notified of the specific immunization requirements and deadlines for submission of supporting documentation.

## A. Immunization Policy

Prior to experiential placements, beginning in Year 1, students must provide completed documentation (utilizing the University of Toronto form) to indicate compliance with the 'Policies on Communicable Disease and Immunizations for Pharmacy Students'.

*Students must use the University of Toronto Immunization Record to record their immunizations, which will be available to students in September 2021. The deadline to submit all Immunization Requirements will be in January 2022.*

### 1. Requirements:

#### a. Tuberculosis

Students whose tuberculin status is unknown, and those previously identified as tuberculin negative (with only ONE single-step Mantoux), require a baseline two-step Mantoux skin test with PPD/5TU. However, if the student has a documented negative PPD test during the preceding 12 months a single-step test may be given.

For students who have had  $\geq 2$  previously documented negative single step PPD tests or 1 previously documented 2-step PPD test, a single-step test may be given.

Annual TB testing is a requirement for individuals who have previously tested negative.

Students who have had previous Bacille Calmette-Guerin (BCG) vaccine may still be at risk of infection and should be assessed. A history of BCG vaccine is not a contraindication to tuberculin testing.

#### Documented positive tuberculin skin test

If a student has a previously documented positive tuberculin skin test, the student does not need to receive another tuberculin skin test, but requires additional documentation.

A chest X-ray should be taken on students who:

- i. are TB skin test positive and have never been evaluated for the positive skin test;
- ii. had a previous diagnosis of tuberculosis but have never received adequate treatment for TB; and/or
- iii. have pulmonary symptoms that may be due to TB.

#### Single-Step Test

Students must not let any time lapse between tests during the APPE year, regardless of the type of rotation they are on or have upcoming. The TB Single-Step Test is valid for one (1) year and must not expire until the end of all APPE rotations (April 29, 2022) and EPE rotations (August 19, 2022).

Students must fill out the form supplied by the OEE on the website and CORE ELMS - only this University of Toronto form is valid proof of completion of the single-step test.

If a student has completed a chest x-ray due to a positive tuberculin skin test, they do not have to submit any further documentation to the Office of Experiential Education in subsequent years.

*We strongly recommend that incoming first-year students wait to complete their Tuberculosis (TB) test until after August 19, 2021, as the test is only valid for one year in-length and must be valid until August 19, 2022.*

#### b. Measles, Mumps, Rubella, Varicella

Proof of 2 vaccinations with documented date or positive titre results for antibodies is required.

**c. *Diphtheria/Tetanus/Acellular Pertussis***

Proof of current immunization status is required. Immunization against diphtheria/tetanus is effective for approximately ten years. Vaccination with acellular pertussis as an adolescent or adult is recommended.

Students must not let their Diphtheria/Tetanus/Acellular Pertussis expire during their APPE or EPE rotations; it should be valid during the entire academic year.

**d. *Polio***

Proof of a complete primary series of polio vaccinations is required. Should immunization be required prior to the commencement of experiential placements, inactivated poliomyelitis vaccine (IPV) is indicated rather than oral poliomyelitis (OPV) vaccine because people receiving OPV may shed the virus and inadvertently expose immunocompromised patients to live virus. Persons who have not received a full primary course should have the series completed with IPV regardless of the interval since the last dose.

**e. *Hepatitis B***

Documented immunization of a complete series of Hepatitis B, including lab evidence of immunity Antibodies to HBsAg (Anti-HBsAg over 10 IU/L = immune) must be provided at least one month after the vaccine series is complete.

- i. Individuals who are non-immune (i.e., do not have the antibodies against HBsAg after immunization), must be screened for the surface antigen (HBsAg). If the HBsAg result is positive, a further screen for e-antigen (HBeAg) must be performed.
- ii. Individuals who are non-immune and HBsAg negative must undergo a second COMPLETE series of HB immunization, and subsequent lab results recorded. If lab evidence (anti-HBs) does not demonstrate immunity after the second series ('non-responder'), individual consideration should be given to the case, depending on the professional requirements.

Routine booster doses of vaccine are not currently recommended in persons with previously demonstrated antibody as immune memory persists even in the absence of detectable anti-HBs, however periodic testing should be conducted in hepatitis B responders who are immunosuppressed to ensure they are maintaining their anti-HBs titre.

**2. Recommendations:**

Influenza vaccination: is strongly recommended for all pharmacy students participating in experiential placements. Students who choose not to have an annual influenza vaccination should be aware that they may be limited from clinical placements in sites requiring the vaccination.

**3. Site Specific Requirements:**

Students must comply with institutional/corporate policy of the site to which they are assigned. Individual institutions and practice sites may have immunization, testing or documentation requirements for student placements beyond those required by the Faculty. Information regarding these requirements will be provided to students when site assignments are confirmed.

**4. Students with a Communicable Disease:**

- All students are expected to be in a state of health such that they may participate in the academic program, including patient care, without posing a risk to themselves or to others. Students with a communicable disease may participate in experiential visits and rotations only as long as their continued involvement does not pose a health or safety hazard to themselves or others.
- Students who acquire a communicable disease are required to seek medical opinion.
- In addition to complying with other regulations, students with tuberculosis, hepatitis B, hepatitis C or HIV infection must notify the Associate Dean, Academic (or designate) who may consult with experts as appropriate.
- The health status of the students shall remain confidential.

## 5. Student Participation in Care of Patients with Communicable Diseases:

- Students are required to participate in the care of all patients assigned to them, including patients with communicable diseases, to a level commensurate with their level of training. Such participation is necessary for the student's learning as well as for satisfactory completion of academic requirements.
- All students are expected to understand and adhere to infection control policies, including the principles of body substance precautions, when participating in the assessment and care of all patients, regardless of the patient's diagnosis.
- Students are responsible for conducting themselves in a manner which is consistent with the health and safety of themselves and others and shall be given appropriate training to do so. Students who fail to meet these responsibilities may, depending on the circumstances, face sanctions under the provisions of the Standards of Professional Practice Behaviour for All Health Professional Students.
- Students are required to comply with the immunization policies of the Faculty.

## B. Standard First Aid and Level C/BLS CPR

Students must have valid Standard First Aid and Level C/BLS CPR. To meet this requirement, all students must submit:

- prior to experiential placements in Year 1 of the program, evidence of currently valid certification or re-certification and,
- prior to experiential placements in Year 2 of the program, evidence of currently valid certification or re-certification and,
- prior to experiential placements in Year 4 of the program, evidence of re-certification that is valid to the end of Year 4. Students are held individually accountable for submission of required documentation.

Students must not let their CPR/First Aid certification expire throughout the duration of the entire EPE summer or APPE year. All certifications must be valid for Year 1 and 2 until August 19, 2022. All APPE students (Year 4) should have valid certification until April 29, 2022.

## C. Mask Fit Testing

Students must have a valid mask fit test prior to experiential placements in Year 2 of the program. The mask fit testing documentation must be valid until the end of Year 4.

## D. Student Declaration of Understanding (Workplace Safety and Insurance Board or Private Insurance Coverage for Students on Unpaid Placements)

Prior to the start of the experiential rotations, students will need to sign a copy of the *"Student Declaration of understanding"* to confirm that they have read and understood that WSIB or private insurance coverage will be provided through the Ministry of Advanced Education and Skills Development (MAESD), or through policies maintained by the University of Toronto while on a placement.

## E. Registration with the Ontario College of Pharmacists

Students must register with the Ontario College of Pharmacists in Year 1 of the program. Initial registration requirements include submission of application, payment of fee, proof of identity, declaration of good character and acquisition of liability insurance. Once a student has fulfilled registration requirements, the registration is valid for the duration of the academic program at the Faculty. Students must acquire liability insurance for the duration of the registration.

## F. Police Record Check / Vulnerable Sector Screening (PRC/VSS)

Pharmacy students, as part of their curriculum, will have experiential placements (rotations) at various pharmacy practice settings where they may work directly with, or in close proximity to, children or vulnerable persons. To protect these groups and maintain their safety, sites may require Pharmacy students to obtain a Police Record Check and/or Vulnerable Sector Screening. A Police Record Check is more comprehensive than "Criminal Record Checks" and "Clearance Letters".

Students undertaking experiential rotations in subsequent years of the program, and who have already completed a PRC/VSS, may be required by placement sites to show proof of an updated PRC/VSS.

Please note: The requirement for a PRC/VSS is between the student and the placement site. Students can check if this is required by their site by going to their Rotation Schedule and then Single-Site on CORE ELMS. Students DO NOT need to submit PRC/VSS results to the Faculty of Pharmacy.

Students who reside in Toronto must contact the Office of Experiential Education and request a Police Reference Check Program Waiver prior to requesting a check or screening from Toronto Police Services.

## Student Participation in Laboratory Procedures

At various stages of the teaching program there are occasions when biochemical or physiological observations are made by students on themselves or on fellow students. These exercises include some diagnostic procedures in common use. Unless a valid reason exists, students are expected to participate in such activities.

If any investigative work involving student participation does not form part of the teaching program, participation is entirely voluntary.

## Classroom Procedures

1. By the second lecture period in a course, the instructor shall make available to the class, and shall file with the Faculty Registrar the methods by which student performance shall be evaluated. This shall include whether the methods of evaluation will be essays, tests, class participation, seminar presentations, examinations, or other, the relative weight of these methods in relation to the overall grade, and the timing of each major evaluation.
2. Instructors are not obliged to accept late work, except where there are legitimate, documented reasons beyond a student's control. In such cases, a late penalty is normally not appropriate. Where an instructor intends to accept and apply penalties to late assignments, this must be set out clearly in the course syllabus.
3. After the methods of evaluation have been made known, the instructor may not change them or their relative weight without the consent of a simple majority of students attending the class, provided the vote is announced no later than in the previous class. Any changes must be reported to the Faculty Registrar. The only exception to this is in the case of the declaration of a disruption.
4. Student performance in a course shall be assessed on more than one occasion. No one essay, test, examination, etc., should have a value of more than 80% of the grade. Exemptions must be approved by the Committee on Academic Standing prior to the beginning of a course.
5. In courses that meet regularly as a class, there should be an examination (or examinations) conducted formally under Faculty auspices and worth (alone or in the aggregate) at least one-third of the final grade. Exemptions must be approved by the Committee on Academic Standing prior to the beginning of a course. The relative value of each part of an examination should be indicated to the student. In the case of a written examination, the value shall be indicated on the examination paper.
6. Students should have access to commentary on assessed term work and the opportunity to discuss the assessment with the instructor.
7. At least one piece of term work which is part of the evaluation of a student performance and worth at least 10% of the final grade, whether essay, lab report, review, etc., must be returned to the student prior to the last date for withdrawal from the course without academic penalty. Exemption will require approval of the Committee on Academic Standing. In addition, the instructor shall inform the students of the exemption by the second lecture period in the course.

## Procedures in the Event of Disruptions

### Principles

The following principles shall apply in the event of disruption of the academic program:

- i. The academic integrity of academic programs must be honoured; and
- ii. Students must be treated in a fair manner recognizing their freedom of choice to attend class or not without penalty.

### Procedures

- a. The Vice-President and Provost, or the Academic Board, shall declare when a disruption of the academic program has occurred. The Provost shall take steps to inform the University community at large of the changes to be implemented, and will report to the Committee on Academic Policy and Programs regarding the implementation of the procedures and changes to the status of the academic programs.
- b. Individual instructors or multi-section co-ordinators responsible for courses that are disrupted shall determine, as the disruption proceeds, whether any changes to classroom procedures are needed to complete the course.
- c. Changes to the classroom procedures should, where possible, first be discussed with students prior to the class in which a vote of the students present on the proposed changes is to be taken. Changes agreed upon by consensus should be forwarded to the Faculty Registrar with a report on the attendance at the class where the vote was taken.
- d. Where consensus on changes has not been arrived at, or where a vote is not feasible, the instructor, after the class discussion, will provide the Dean with his or her recommendation, along with the results of any classroom votes. The Dean shall then make a decision.
- e. Where classes are not able to convene, the instructor, with the prior approval of the Dean shall make changes deemed necessary to the classroom procedures. In the absence of the instructor such changes will be made by the Dean and require the approval of the Provost. Where courses are to be cancelled, approval of the Faculty Council is required. If the Faculty Council cannot meet, approval of the Dean, or in the absence of the Dean, the approval of the Provost, is required.
- f. Students must be informed of changes to classroom procedures. This may be done by circulating the changes in writing to the class, posting in the Faculty offices, reporting to Faculty Council, as well as listing in the campus press. Should classes resume students must be informed, at class, of any changes made during the disruption.
- g. Where changes to the classroom procedures are made, students who do not wish to complete the course under the revised procedures may withdraw without academic penalty. This must be done prior to the last day of classes.
- h. Where students have not attended classes that are meeting, they nonetheless remain responsible for the course work and meeting course requirements. However, where possible, reasonable extension of deadlines for the course requirements, or provision of make-up tests shall be made and reasonable alternative access to material covered should be provided.
- i. A student who feels, owing to his or her special circumstances, that changes to the classroom procedure have unreasonably affected his or her grade may appeal the grade following the procedure as set out in the Faculty.

## Assessment in Clinical and Field Settings

The assessment of the performance of students in clinical or field settings should be conducted in line with the University Assessment and Grading Practices Policy. It is obligatory that the assessment of the performance of students should be fair, humane, valid, reliable and in accordance with the principles enunciated in this policy. Accordingly, where a student's performance in a clinical or field setting is to be assessed for credit, the evaluation must encompass as a minimum:

- a. A formal statement describing the evaluation process, including the criteria to be used in assessing the performance of students and the appeal mechanisms available. This statement should be available to all students before or at the beginning of the clinical or field experience;
- b. A mid-way performance evaluation with feedback to the student;
- c. Written documentation of the final assessment.

In addition, for such clinical and field experiences, the Faculty must ensure that:

- a. Clinical and field assessors are fully informed regarding University, Faculty and course policies concerning evaluation procedures, including the specific assessment procedures to be applied in any particular field or clinical setting.

Any exception from the above would require a Faculty Council request with explanation for approval by the Governing Council.

## Access to Previous Exams

For all courses where there is a final written examination, instructors should provide access to copies of the previous years' final examination papers and other years' papers where feasible. Exemption may be granted by the Committee on Academic Standing.

## Faculty Appeals

- A.** Students may appeal to the Committee on Appeals decisions made by any Standing Committee of Faculty Council and approved by Faculty Council.

- B. Structure:**

1. The Appeals Committee of the Council of the Leslie Dan Faculty of Pharmacy has been established as the formal structure within the Faculty for the hearing of appeals. Within the Faculty, final decision on an appeal rests with this Committee which reports to Faculty Council for information.
2. The Committee is comprised of a Chair, four academic members of Faculty Council and one student enrolled in the same program but not in the same class as the appellant. Members of the Committee will not have had any previous association with the matter which forms the substance of the appeal.
3. A further right of appeal is to the Academic Appeals Committee of the Governing Council. An appeal to the Academic Appeals Committee shall, except in exceptional circumstances, be commenced by filing a notice with the Secretary of the Committee no later than ninety days after the decision from which the appeal is being taken has been communicated in writing to the appellant. Information regarding the Academic Appeals Committee's Terms of Reference, Membership and Notice of Appeal Form are available online at <https://governingcouncil.utoronto.ca/processes/academic-appeals>.

- C. Procedures:**

1. In the event that students feel they have a cause for appeal and are considering a formal appeal, they must consult the Faculty Registrar about the preparation and submission of the appeal.
2. An appeal may be submitted when a student feels that relevant evidence of circumstances impacting his/her performance was not duly considered when a decision affecting the student was taken. Therefore, an appeal normally must be preceded by the submission of a petition. In the absence of a petition, permission to submit an appeal may be granted nonetheless by the Appeals Committee at the hearing of the appeal. In such a case, the

reason(s) for the failure to submit a petition must be stated in the appeal.

3. Appeals and all material relied upon must be submitted to the Faculty Registrar within 21 calendar days of the communication of the decision that is being appealed. Permission to file any material which was not available, or could not by reasonable means be made available by this date, or which comes to light after this date and prior to the appeal hearing, must be obtained from the Faculty Registrar in consultation with the Chair of the Appeals Committee.
4. The appeal shall: i) be in writing; ii) state the nature and grounds of the appeal, and iii) be accompanied by any documents which will be used in support of the appeal.
5. Receipt of an appeal will be acknowledged by the Chair of the Appeals Committee in a letter sent by registered mail or other receipted delivery.
6. The Chair of the Appeals Committee, along with the Faculty Registrar, will then set a date and time for the appeal to be heard. The appellant will be notified of the date, time and place of the hearing by registered mail or other receipted delivery. The general format for the conduct of the hearing will also be communicated to the appellant.
7. Students have the right to appear before the Appeals Committee with or without legal counsel. If students intend to be accompanied by legal counsel, this must be communicated to the Chair of the Appeals Committee in the appeals submission.
8. Students also have the right to call evidence and present argument in person and/or through legal counsel.
9. The Appeals Committee is required to arrive at a majority decision and this decision, together with a concise but complete statement of the reasons for the decision, will be sent to the appellant by registered mail or other receipted delivery the next business day following the hearing.

#### **D. Conduct of the Appeal Hearing:**

1. Prior to the date of the hearing of the appeal, the Faculty Registrar will distribute, on a confidential basis, to each member of the Appeals Committee, to the Dean of the Faculty and to the appellant, a copy of the appeal submission and supporting documents, and a copy of any other relevant materials. Members of the Committee will review but will not discuss the case prior to the hearing.
2. On the day of the hearing, immediately prior to the hearing being called to order, the members of the Appeals Committee will meet to review the materials pertinent to the appeal. When the submission of an appeal has not been proceeded by the submission of a petition, the Committee will determine if the appeal will be heard.
3. When the hearing is called to order, the parties present will be the members of the Appeals Committee, the appellant and his/her legal counsel (if desired), the Dean of the Faculty and the Faculty Registrar.
4. The hearing will be conducted as follows:
  - i. the Chair will make an opening statement to provide information concerning the disposition of the case by the Committee;
  - ii. the appellant or his/her legal counsel will be given the opportunity to make a statement;
  - iii. the Dean of the Faculty will be allowed to provide comment;
  - iv. each member of the Committee will have the opportunity to ask questions of the appellant, the Dean and the Faculty Registrar;
  - v. the appellant or his/her legal counsel will be allowed to make a brief statement in summation of the appeal.
5. All parties except the members of the Appeals Committee will then leave the room and the Committee will proceed to deliberate and come to a decision on the appeal.

#### **E. Other Important Information**

1. Students submitting an appeal are required to provide proper documentation in support of the appeal.

If illness is the reason for the appeal, the '[University of Toronto Verification of Illness or Injury](#)' form should be submitted. Note that the physician's report must establish that the student was examined and diagnosed at the

time of the illness, not after the fact. As well, a statement that merely confirms a report of illness made by the student for documentation by the physician will not be sufficient. Rather, the medical report must show:

- that the student was examined at the time of illness;
- the degree of disability involved;
- the duration of the disability;
- the practitioner's professional opinion as to whether the student should receive special consideration on medical grounds.

Statements from social workers, lawyers, clergy and other professionals may also be relevant and should:

- state the nature and extent of the problem;
  - give his/her professional opinion as to whether the student should receive special consideration on the grounds documented in the student's appeal.
2. Students are assured that all student records are confidential, including appeal submissions and supporting documentation. As stated in the University's 'Guidelines Concerning Access to Student Academic Records', only those staff members who need to may "have access to relevant portions of an official academic record for the purposes related to the performance of their duties."
  3. Students are also assured that they will have the opportunity to raise matters of proper concern to them, throughout the appeals process, without fear of disadvantage.
  4. University policies relevant to the appeals process include, but are not limited to the following:
    - [University Assessment and Grading Practices Policy](#)
    - [Guidelines Concerning Access to Official Student Academic Records](#)
    - [Policy on Access to Information and Protection of Privacy](#)
    - [Statement of Institutional Purpose](#)
    - [Statement on Human Rights](#)

## University of Toronto Policies

As members of the University of Toronto community, students assume certain responsibilities and are guaranteed certain rights and freedoms. The University has several policies that are approved by the Governing Council and which apply to all students. Each student must become familiar with the policies. The University will assume that they have done so.

All University policies can be found on the Office of the Governing Council Website at <https://governingcouncil.utoronto.ca/secretariat/policies>

Policies of particular importance to students are:

- [Code of Behaviour on Academic Matters](#)
- [Code of Student Conduct](#)
- [Guidelines Concerning Access to Official Student Academic Records](#)
- [Policy on Academic Sanctions for Outstanding University Obligations](#)
- [Policy on Official Correspondence with Students](#)
- [Standards of Professional Practice Behaviour for All Health Professional Students](#)

# Student Services and Resources

## Transcripts

### University of Toronto Transcript Centre

172 St. George Street  
416-978-2190  
[transcripts@utoronto.ca](mailto:transcripts@utoronto.ca)  
<https://transcripts.utoronto.ca/>

A student's transcript is an official copy of their academic record and contains a summary of their academic activities at the University of Toronto, including courses, grades, programs of study and degrees conferred.

The University of Toronto Transcript Centre (UTTC) produces consolidated transcripts in both digital (PDF) and paper formats. The fee for transcripts is \$15 per copy.

Administrative and/or financial holds may be placed on a student's academic record. Should this occur, the transcript would not be issued.

Transcripts may be ordered in ACORN ([www.acorn.utoronto.ca](http://www.acorn.utoronto.ca)).

## University of Toronto Services and Resources for Students

### Academic Success Centre

214 College Street, Room 150, Main Floor  
416-978-7970  
[mail.asc@utoronto.ca](mailto:mail.asc@utoronto.ca)  
<https://studentlife.utoronto.ca/department/academic-success/>

The Academic Success Centre (ASC) is dedicated to ensuring students achieve their highest possible learning potential. Through lectures, workshops, groups, counselling and online assistance, the ASC helps students become better learners. The Centre is open to students at all levels and has specialized programming for both undergraduate and graduate students. Staff members at the ASC also collaborate with student groups, staff members and faculties to develop tailored programs on a wide range of learning topics.

### Accessibility Services

455 Spadina Avenue, Suite 400  
416-978-8060  
[accessibility.services@utoronto.ca](mailto:accessibility.services@utoronto.ca)  
<https://studentlife.utoronto.ca/department/accessibility-services/>

Accessibility Services assists students in navigating disability related barriers to their academic success at the University of Toronto for ongoing or temporary disabilities. Students requesting accommodations are advised to begin the registration process with Accessibility Services as early as possible to facilitate the implementation of supports (i.e., by mid-July for the fall term). Students must present relevant and up-to-date documentation from an appropriate health care provider, as outlined on the Accessibility Services website. Support services for students include:

- Alternative test and examination arrangements
- Volunteer note-taking services
- Support to obtain appropriate documentation and assessments
- Adaptive technology assessments
- Adaptive technology and assistive devices
- Sign-language interpreters/computerized note-taking/real time captioning
- On-campus transportation

## Anti-Racism & Cultural Diversity Office

155 College Street, 3rd floor  
 416-978-1259  
[antiracism@utoronto.ca](mailto:antiracism@utoronto.ca)  
<https://antiracism.utoronto.ca/>

The Anti-Racism & Cultural Diversity Office provides services to support University members in their efforts to foster environments that are intentionally racially diverse and inclusive through the advancement of equitable practices, education and training and the provision of complaints resolution supports on matters of race, faith and intersecting identities as guided by the Ontario Human Rights Commission.

## Career Exploration & Education

214 College Street, Room 150, Main Floor  
 416-978-8000  
[careercentre@mail.careers.utoronto.ca](mailto:careercentre@mail.careers.utoronto.ca)  
<https://studentlife.utoronto.ca/department/career-exploration-education/>

Career Exploration & Education supports students and recent graduates as they build their future in our changing world. They help students explore what they can do with their degree, discover job opportunities and further education.

## Family Care Office

214 College Street, Room 103, Main Floor  
 416-978-0951  
[family.care@utoronto.ca](mailto:family.care@utoronto.ca)  
[www.familycare.utoronto.ca](http://www.familycare.utoronto.ca)

The Family Care Office supports students and their families with family related issues. Services, which are free and confidential, include information, guidance, referrals, educational programming and advocacy. Students can meet with a staff member and/or a peer mentor to discuss their particular situation, including:

- Planning for parenthood and pregnancy
- Child care options
- Financial resources and subsidies
- Managing school and family life
- Looking after aging relatives

## First Nations House: Indigenous Student Services

563 Spadina Avenue, 3rd Floor  
 416-978-8227  
[fnh.info@utoronto.ca](mailto:fnh.info@utoronto.ca)  
<https://studentlife.utoronto.ca/department/first-nations-house/>

First Nations House provides culturally relevant services to Indigenous students in support of academic success, personal growth and leadership development. They also offer learning opportunities for all students to engage with Indigenous communities within the University of Toronto and beyond.

## Health & Wellness Centre

214 College Street, 2nd floor  
 416-978-8030  
[info.hwc@utoronto.ca](mailto:info.hwc@utoronto.ca)  
<https://studentlife.utoronto.ca/department/health-wellness/>

Support when you're feeling distressed: [www.studentlife.utoronto.ca/feeling-distressed](http://www.studentlife.utoronto.ca/feeling-distressed)

The Health & Wellness Centre offers students services that are similar to those offered by a family doctor's office. The Health & Wellness team includes family physicians, registered nurses, counsellors, psychiatrists, a dietician and support staff. They provide confidential, student-centred health care, including comprehensive medical care, immunization, sexual health care, counselling and referrals.

Students enrolled in the PharmD program have access to a dedicated "Wellness Counsellor" who has an office in the Leslie L. Dan Pharmacy building. This counsellor offers brief counselling services tailored to support students who may be struggling with the many challenges presented by university life. To book an appointment, call the Health & Wellness Centre (416-978-8030) and ask for an appointment with the Faculty of Pharmacy's dedicated counsellor.

## Housing Service

214 College Street, Rm 150, Main Floor  
416-978-8045  
[residence@utoronto.ca](mailto:residence@utoronto.ca) (residence inquiries)  
[housing.services@utoronto.ca](mailto:housing.services@utoronto.ca) (all other inquiries)  
<https://studentlife.utoronto.ca/department/housing/>

The Housing Service is a year-round source of up-to-date housing information for off-campus, single-student residence, and student family housing. Their online registry of off-campus housing is available to University of Toronto students, providing listings for both individual and shared accommodations. The Housing Service provides assistance to students dealing with landlord and roommate conflicts and other housing issues/challenges. In addition, they provide information on tenant rights and responsibilities.

## Office of the University Ombudsperson

[ombuds.person@utoronto.ca](mailto:ombuds.person@utoronto.ca)  
<https://governingcouncil.utoronto.ca/ombudsperson>

As part of the University's commitment to ensuring that the rights of its individual members are protected, the University Ombudsperson offers impartial advice and assistance to students, staff, and faculty who have been unable to resolve their concerns about treatment by the University through regular University processes or policies. The Ombudsperson is independent of all administrative structures of the University and all matters are strictly confidential unless the individual involved approves otherwise.

If you have unresolved concerns or are in need of impartial, confidential advice, complete the '[Request for Assistance Form](#)' found on the website.

## Sexual & Gender Diversity Office

21 Sussex Ave, Suites 416-417  
416-946-5624  
[sgdo@utoronto.ca](mailto:sgdo@utoronto.ca)  
<https://sgdo.utoronto.ca/>

The Sexual & Gender Diversity Office develops partnerships to build supportive learning and working communities at the University of Toronto by working towards equity and challenging discrimination. The Office provides innovative education, programming, resources and advocacy on sexual and gender diversity for students, staff and faculty across the University's three campuses.

## Sexual Violence Prevention & Support Centre

Gerstein Science Information Centre (Gerstein Library), Suite B139  
Non-urgent matters: 416-978-2266  
Emergencies: 416-978-2222 (Campus Police)  
[svpscentre@utoronto.ca](mailto:svpscentre@utoronto.ca)  
<https://www.svpscentre.utoronto.ca/>

The Sexual Violence Prevention & Support Centre works to create a campus environment where all members of the University community can study, work and live free from sexual violence. This tri-campus centre offers:

- Confidential, non-judgmental client-centred services
- Coordination and navigation of University supports, services and accommodations
- Support making a disclosure
- Assistance with reporting

## **Additional Services and Resources**

- [Academic Integrity](#)
- [Centre for Community Partnerships](#)
- [Centre for International Experience](#)
- [Clubs & Leadership Development](#)
- [Community Safety Office](#)
- [Hart House](#)
- [Health Sciences Writing Centre](#)
- [Mentorship & Peer Programs](#)
- [Multi-Faith Centre for Spiritual Study & Practice](#)
- [Orientation, Transition & Engagement](#)

# Doctor of Pharmacy Program

## Sessional Dates

### First, Second and Third Years

#### Fall Session, 2021

Monday, September 6	Labour Day; University closed
TBD	Orientation for First Year Students
Thursday, September 9	Classes commence
Wednesday, September 22	Last day to add courses with F section codes
Monday, October 11	Thanksgiving; University closed
Wednesday, November 3	Last day to cancel (drop) courses with F section codes
Wednesday, December 8	Classes end
December 10 to 21	Examination period

#### Winter Session, 2022

Monday, January 3	Classes commence
Friday, January 14	Last day to add courses with S section codes
Friday, February 18	Last day to withdraw without academic penalty
Monday, February 21	Family Day; University closed
February 22 to 25	Reading Week
Friday, March 4	Last day to cancel (drop) courses with S section codes
Friday, April 8	Classes end
April 11 to 29	Examination period
Friday, April 15	Good Friday; University closed

### Fourth Year

#### Summer Session, 2021

Monday, May 3	APPE Rotations Begin
Friday, August 13	APPE Rotations End

#### Fall Session, 2021

Monday, August 16	APPE Rotations Begin
Friday, January 14	APPE Rotations End

#### Winter Session, 2022

Monday, January 17	APPE Rotations Begin
Friday, April 29	APPE Rotations End

## Program Description, Admission and Completion Requirements

The Doctor of Pharmacy (PharmD) program at the Leslie Dan Faculty of Pharmacy delivers a one-of-a-kind experience to aspiring leaders in pharmacy.

As Canada's most trusted health professionals, pharmacists occupy a special place in the community and in the healthcare system. To be successful in this multifaceted role, individuals must be effective communicators, hardworking, empathetic and possess strong problem-solving skills.

We are the leading pharmacy educator and pharmaceutical sciences research centre in Canada, and our goal is to develop the healthcare leaders of tomorrow. Students in the PharmD program are driven to excel through a combination of coursework, laboratory instruction and hands-on learning and experiential rotations in community, hospital, and other healthcare settings.

Together, the skills, knowledge, and experience acquired through this four year program prepares our graduates to become successful practitioners and leaders in healthcare.

### Admission Requirements

*Information related to admissions cited in this section was accurate at the time of printing; however, since changes may occur, prospective candidates and individuals selected for admission are advised to obtain up-to-date information from the Leslie Dan Faculty of Pharmacy website at <https://pharmacy.utoronto.ca/programs-and-admissions/pharmd/admissions/>*

### Selection Factors (An Overview):

For the 2022 admission cycle approximately 240 candidates will be admitted to the four-year PharmD program. Since the number of applicants exceeds the number of available places, the Faculty recommends that prospective applicants take a program of study which will not only meet the admissions requirements for our PharmD program, but will make them eligible for entry to alternative programs/faculties.

Applicants are selected on a competitive basis in which overall performance is considered. The Faculty website provides up-to-date information and should be consulted for important information and relevant details for the current cycle.

### Application Procedures:

All prospective applicants must access up-to-date information from the Faculty's website at <https://pharmacy.utoronto.ca/programs-and-admissions/pharmd/admissions/>. An online application and online application fee payment must be submitted by the published deadline (January 3, 2022 is the final application deadline for admission in September 2022). In addition, required documents must be submitted as outlined in the 'Application Process' section of the Faculty website.

The admission requirements outlined in this calendar pertain only to the 2022 admission cycle and are based on information available at the time of printing. All prospective applicants who read this calendar should be aware that there may be changes for the current and future admission cycles and are advised to obtain updated information on the website. Final information related to application requirements, procedures, deadlines, as well as the online application and fee for each admission cycle, is available on the Faculty's website each September for the subsequent September's admission.

If you wish to be considered for any alternative faculty choices at the University of Toronto, contact Enrolment Services at 416-978-2190 for details on procedures and application deadlines. It is advisable to do this early (by December) since application deadlines vary. The Pharmacy application and application fee will NOT be used for alternative faculty or university choices. Separate applications and relevant fees must be submitted for consideration for admission to other faculties or universities.

## Academic Criteria for Admission in September 2022:

Consideration for entrance to the first year of the PharmD program will be given to candidates who:

- i. have obtained a cumulative university average of at least 70% (i.e., equivalent to a 'B-' at U of T);
- ii. have successfully completed all required subjects at the university level as listed below. This normally necessitates a minimum of two years of study at the university level. [Note: FCE= Full-credit equivalent (1.0 FCE = 2 terms/semesters)]
  - 1.0 FCE Biology
  - 1.5 FCEs Chemistry
  - 1.0 FCE Math (including minimum of 0.5 FCE Calculus)
  - 1.0 FCE Humanities/Social Science
- iii. have successfully completed a minimum of 8.0 FCEs (full-credit equivalents) at the university level

Refer to the 'Academic Requirements' section of the Faculty's website for detailed information related to the subject requirements, including restrictions: <https://www.pharmacy.utoronto.ca/programs/doctor-pharmacy-pharmd/pharmd-academic-requirements>

**Although there is no minimum published required course load it is recommended that applicants have experience with a full course load (e.g., minimum of one year with 5.0 FCEs successfully taken in a regular academic year from September to April) to prepare for the challenging course load in the PharmD program.**

Applicants who do not successfully complete all required subjects, or who have obtained a cumulative university average below 70% will not be considered. Although 70% (B-) is the published minimum average, the minimum to proceed to an interview, or for final selections, may be higher depending on the performance of the overall applicant pool in any given year.

Prospective applicants cannot take a required subject in the summer session in the same year for which application is made since grades are issued too late for admission consideration. Normally all required courses must end by April/May to allow the final grades to be received by the Faculty of Pharmacy no later than the final published deadline.

The academic subject requirements may be completed at any university provided that university is an accredited institution. Special preference will not be given to students enrolled at the University of Toronto.

In addition to other published criteria, and regardless of other academic credentials and/or work/personal experience, candidates with previous registration in a Pharmacy program must have been in good standing during the most recent session/year of the Pharmacy program to be eligible for admission consideration.

## Other Requirements for Admission in September 2022:

All candidates must write the CASPer test (Computer-Based Assessment for Sampling Personal Characteristics). The last test date valid for admission in September 2022 is January 5, 2022. The CASPer may be taken only once each academic year. Information regarding the format of the test, and registration procedures, is available at [www.takecasper.com](http://www.takecasper.com).

Selected candidates who met the minimum threshold in academic criteria and in the CASPer test, will be invited to proceed to an online, asynchronous, interview through a video-enabled platform.

Candidates must refer to the Faculty's website for detailed information related to these application requirements.

## English Facility:

Applicants whose first language is not English and who have not successfully studied in an **English language school system\*** for at least four full years must present an acceptable score on one of the recognized English Facility Tests.

*\*An English language school system must be located in a country where the dominant language is English.*

Details on acceptable tests and required scores can be found on the Faculty's web site.

### **Applicants Presenting More than the Minimum Prerequisites:**

Applicants who have completed more than the minimum published academic requirements in any program, including those who have completed one or more degrees, are advised that they must meet all published requirements and will be considered for admission to Year 1. Course exemption/ transfer credit for those entering Year 1 is considered only for the courses listed in the 'Course Exemptions' section of the calendar/website. Admitted students who have completed one or more years of a Pharmacy program at a recognized institution may be considered for additional course exemptions, up to a maximum of 9.0 full-credit equivalents, and would be considered on a case-by-case basis and placed appropriately.

### **Special (Non-Degree) Students:**

Students may be admitted to various individual courses as special (non-degree) students provided places are available, the course pre-requisites have been met, the permission of the instructor is obtained, and a need for registration in the requested course(s) is demonstrated. No credit towards the PharmD program will be allowed for students admitted in this category. Although preference may be given to hospital, industrial and community pharmacy residents, other candidates who are often considered for admission as special (non-degree) students include foreign Pharmacy graduates (whose qualifications have been evaluated and recognized by the Pharmacy Examining Board of Canada), as well as graduates from other Canadian schools of Pharmacy, and past graduates of this Faculty who wish to take courses either to upgrade their skills/knowledge or out of interest. Candidates wishing to apply to take individual courses as a special (non-degree) student must contact the Undergraduate Admissions Office ([adm.phm@utoronto.ca](mailto:adm.phm@utoronto.ca)) at the Faculty to obtain the Special (Non-Degree) Student Application Form. These are available as of May 1st of each year. For all candidates applying from within Canada the deadline for receipt of these applications, with required documents, is August 3 for courses beginning in September, and December 1 for courses beginning in January. For prospective candidates applying from outside Canada the deadline for receipt of the applications with required documents, is July 2 for courses beginning in September and November 1 for courses beginning in January. Special (non-degree) students will not be considered for registration in any experiential components (EPE or APPE). Candidates applying as special (non-degree) students whose first language is other than English must also meet the English facility requirements as listed in the 'English Facility' section.

### **Indigenous Peoples:**

The Leslie Dan Faculty of Pharmacy welcomes applications from Indigenous peoples descended from the first inhabitants of North America. This includes people of Metis, Indian and Inuit heritage. Such applicants will be expected to meet the published admission requirements but may be considered separately from the mainstream applicants if all minimum standards in each of the admissions criteria, as established during final selections, are met. Indigenous students are asked to identify themselves on the application form. A scholarship in the amount of \$1,000 is available for one Indigenous student entering First Year.

#### Additional Information About Subject Requirements - for Admission for September 2021

Provides detailed information about prerequisite courses.

#### Examples of Acceptable Courses at Canadian Universities - Examples for Admission for September 2021

Examples of courses meeting prerequisite requirements at all Ontario (and some non-Ontario) Universities.

#### Information for Candidates who Have Studied Outside Ontario (Non-Ontario and International)

Further information for applicants who have studied outside Ontario or outside of Canada.

#### Information for High School Students and Guidance Counsellors

#### Frequently Asked Questions

A compilation of the most frequently asked questions about academic requirements.

# Completion Requirements

## First Year Curriculum:

Subject		Total Hours						Weight Value
		Fall Term			Winter Term			
		Lec.	Tut.	Prac.	Lec.	Tut.	Prac.	
<u>PHM101H1</u>	Pharmacotherapy 1: Foundations and General Medicine	–	–	–	25.5*	18.5**	–	0.5
<u>PHM105H1</u>	Medication Therapy Management 1	–	–	–	12	–	27	0.5
<u>PHM110H1</u>	Health Systems	26	4	–	–	–	–	0.5
<u>PHM113H1</u>	Pharmacy Informatics	11*	2	–	–	–	–	0.25
<u>PHM114H1</u>	Social and Behavioural Health	–	–	–	26	4	–	0.5
<u>PHM130H1</u>	Pharmaceutical Calculations	13	–	–	–	–	–	0.25
<u>PHM140H1</u>	Molecular Pharmacology	–	–	–	39	***	–	0.5
<u>PHM141H1</u>	Pharmaceutics	–	–	–	39	***	–	0.5
<u>PHM142H1</u>	Metabolic Biochemistry and Immunology	26	13	–	–	–	–	0.5
<u>PHM143H1</u>	Pathobiology and Pathology	–	–	–	36	3	–	0.5
<u>PHM144H1</u>	Pharmacokinetics	33	6	–	–	–	–	0.5
<u>PHM145H1</u>	Human Histology and Anatomy	39	–	–	–	–	–	0.5
<u>PHM146H1</u>	Fundamentals of Pharmacology	13	–	–	–	–	–	0.25
<u>PHM151H1</u>	Early Practice Experience 1	1	–	–	2	–	160#	0.5

\* Includes online learning components.

\*\* Includes large group problem-based or case-based learning and/or small group tutorials.

\*\*\* A number of optional tutorial hours may be arranged.

# Experiential hours to be completed in the summer after Year 1.

## Second Year Curriculum:

Subject		Total Hours						Weight Value
		Fall Term			Winter Term			
		Lec.	Tut.	Prac.	Lec.	Tut.	Prac.	
<u>PHM201H1</u>	Pharmacotherapy 2: Self-Care Perspectives and Pharmacotherapy	11	28** +***	–	–	–	–	0.5
<u>PHM202H1</u>	Pharmacotherapy 3: Endocrinology, Nephrology and Urology	20	19**	–	–	–	–	0.5
<u>PHM203H1</u>	Pharmacotherapy 4: Infectious Diseases	–	–	–	27	12**	–	0.5
<u>PHM204H1</u>	Pharmacotherapy 5: Cardiovascular Diseases	–	–	–	24	15**	–	0.5
<u>PHM205H1</u>	Medication Therapy Management 2	12*	1	26	–	–	–	0.5
<u>PHM206H1</u>	Medication Therapy Management 3	–	–	–	14	3	14	0.5
<u>PHM212H1</u>	Research Methods for Pharmacy	21	11**	–	–	–	–	0.5
<u>PHM213H1</u>	Health Economics and Pharmacoeconomics	–	–	–	24	2	–	0.5
<u>PHM215H1</u>	Management: Skills, Communication and Collaboration	–	–	–	26	6**	–	0.5
<u>PHM230H1</u>	Physical Assessment and Injection Techniques	–	–	–	29*	–	9	0.5
<u>PHM240H1</u>	The Science of Pharmacotherapy (Online course)	–	–	–	26	***	–	0.5
<u>PHM241H1</u>	Topics in Pharmaceutical Quality and Clinical Laboratory Medicine	10	2**	24	–	–	–	0.5
<u>PHM242H1</u>	Microbiology of Infectious Diseases	38	1	–	–	–	–	0.5
<u>PHM251H1</u>	Early Practice Experience 2	2	–	–	2	–	160#	0.5

\* Includes online learning components.

\*\* Includes large group problem-based or case-based learning and/or small group tutorials.

\*\*\* A number of optional tutorial hours may be arranged.

# Experiential hours to be completed in the summer after Year 2.

### Third Year Curriculum:

Subject		Total Hours						Weight Value
		Fall Term			Winter Term			
		Lec.	Tut.	Prac.	Lec.	Tut.	Prac.	
<b>Required Courses</b>								
<u>PHM301H1</u>	Pharmacotherapy 6: Hematology, Oncology and Immunotherapies	27*	12**	–	–	–	–	0.5
<u>PHM302H1</u>	Pharmacotherapy 7: Neuropsychiatry	27	12**	–	–	–	–	0.5
<u>PHM305H1</u>	Medication Therapy Management 4	12	–	27	–	–	–	0.5
<u>PHM310H1</u>	Pharmacy in the Modern Health Care System	22	4	–	–	–	–	0.5
<u>PHM330H1</u>	Preparation for Advanced Pharmacy Practice Experience	–	–	–	28*	–	8	0.5
<u>PHM340H1</u>	Introductory Toxicology	26	–	–	–	–	–	0.5
<b>Selective Courses</b>								
<u>PHM350H1</u>	Pharmacotherapy in Ambulatory Care	–	–	–	14	12**	–	0.5
<u>PHM351H1</u>	Pharmacotherapy in Institutional Care	–	–	–	22	4**	–	0.5
<u>PHM352H1</u>	Pharmacotherapy in Older Adults	–	–	–	14	12**	–	0.5
<u>PHM353H1</u>	Pharmacotherapy in Critical Care	–	–	–	22	4**	–	0.5
<u>PHM354H1</u>	Pharmacotherapy in Pediatrics	–	–	–	26	–	–	0.5
<u>PHM355H1</u>	Pharmacotherapy in Women's Health	–	–	–	24*	2	–	0.5
<u>PHM360H1</u>	Personalized Medicine	–	–	–	6	20**	–	0.5
<u>PHM361H1</u>	Latest Developments in Drugs and Biologics	–	–	–	12	14**	–	0.5
<u>PHM362H1</u>	Assessing the Bioavailability and Bioequivalence of Medicinal Drug Products	–	–	–	24	2	–	0.5
<u>PHM370H1</u>	Community Pharmacy Management	–	–	–	26	–	–	0.5
<u>PHM371H1</u>	Institutional Pharmacy Practice Management	–	–	–	24	2**	–	0.5
<b>Elective Courses</b>								
<u>PHM320H1</u>	Global Pharmaceutical Policy	24	2	–	–	–	–	0.5
<u>PHM321H1</u>	Selected Topics in the Pharmaceutical Industry	26	–	–	–	–	–	0.5
<u>PHM322H1</u>	Patient/Medication Safety	–	–	–	16	10	–	0.5
<u>PHM323H1</u>	Molecular Mechanisms of Drug Action	26	***	–	–	–	–	0.5
<u>PHM324H1</u>	Recent Developments in Dosage Form Design	26	–	–	–	–	–	0.5
<u>PHM325H1</u>	Indigenous Issues in Health and Healing	22	4	–	–	–	–	0.5
<u>PHM381H1</u>	Medical Imaging for Pharmacists	–	–	–	19	7	–	0.5
<u>PHM382H1</u>	Nanomedicines in Oncology	–	–	–	26	***	–	0.5
<u>PHM383H1</u>	Antimicrobial Stewardship	16	10	–	–	–	–	0.5
<u>PHM384H1</u>	Teaching and Learning	–	–	–	16	6	4	0.5
<u>PHM385H1</u>	Diabetes Care	–	–	–	26	–	–	0.5
<u>PHM386H1</u>	Mental Health and Addiction	–	–	–	26	–	–	0.5
<u>PHM387H1</u>	Global Health	–	–	–	16	10**	–	0.5
<u>PHM388H1</u>	Self-Care Perspectives and Pharmacotherapy for Minor Ailments	–	–	–	12	14**	–	0.5
<u>PHM389H1</u>	Research Project (Offered in Fall and Winter)	–	–	78	–	–	78	0.5

\* Includes online learning components.

\*\* Includes large group problem-based or case-based learning and/or small group tutorials.

\*\*\* A number of optional tutorial hours may be arranged.

## Fourth Year Curriculum:

Advanced Pharmacy Practice Experience (APPE) courses are offered in the Summer, Fall and Winter terms of the Fourth Year. Each student is required to complete a total of 35 weeks of APPE courses, consisting of 25 weeks of required Direct Patient Care rotations and two 5-week elective rotations, as outlined below.

Contact hours: 40 hours per week (i.e., 200 hours total per 5-week course; 400 hours total per 10-week course)

Weight value: 0.5 (per 5-week course); 1.0 (per 10-week course)

### Required Direct Patient Care Rotations (1 x 10 weeks plus 3 x 5 weeks):

Required: Community Practice Direct Patient Care - 1 x 10 weeks

Required: Institutional Practice Direct Patient Care - 2 x 5 weeks, including a minimum of 5 weeks in an adult inpatient setting

Selective: Direct Patient Care - 1 x 5 weeks

### Elective Rotations (2 x 5 weeks):

These may occur in Non-Direct Patient Care and/or Direct Patient Care settings.

## Interprofessional Education

Interprofessional education (IPE) encompasses a learning continuum that stretches from the university to clinical practice in many types of settings. It involves numerous stakeholder groups, among them students, faculty, clients/patients/families, clinicians and administrators. IPE expands the traditional uniprofessional education model to an educational process where two or more professional groups are brought together to “learn about, from and with each other to enable effective collaboration and improve health outcomes” (World Health Organization, 2010). In current strategic planning that is occurring at Health Canada, the Ontario Ministry of Health and Long-Term Care, and the University of Toronto, IPE is seen as key to developing well-prepared professionals who will assume leadership roles in health care upon graduation.

The University of Toronto (IPE) curriculum/program builds upon a rich history of IPE and is focused on the development of specific values and core competencies across eleven health professional programs (i.e., dentistry, medical radiation sciences, medicine, nursing, occupational therapy, pharmacy, kinesiology and physical education, physician assistant, physical therapy, social work and speech- language pathology).

The knowledge, skills/behaviours and attitudes developed through the IPE curriculum/program will enable students to provide collaborative patient/client-centred care in an interprofessional context. This curriculum/program has traditionally included four core learning activities and two elective learning activities, as well as interprofessional learning activities during the APPE rotations. The University of Toronto is now expanding the Interprofessional Education for health professional students into an Integrated Curriculum model which includes the core activities, and integrates additional IPE learning activities. These activities are being incorporated into courses within the pharmacy curriculum which align with the content of the learning activity.

Further information (including information on the number of contact hours for each learning activity) is available on the University of Toronto Centre for Interprofessional Education website (<http://ipe.utoronto.ca>).

## Doctor of Pharmacy Courses

### PHM101H1 Pharmacotherapy 1: Foundations and General Medicine

**Hours:** 23L/20T

This is the first of a series of courses taught over three years of the program which will provide the required knowledge and skills to effectively manage patients' drug therapy. In addition to covering selected therapeutic topics, the course will integrate relevant pathophysiology, pharmacology, clinical pharmacokinetics, selected pharmaceuticals and principles of evidence-based pharmacotherapy. Principles of drug therapy in geriatrics, pediatrics and other special populations will be addressed. Various learning and teaching methodologies will be used including didactic teaching, small group case discussions, and in-depth discussions of cases in small case study seminar groups. This course will help students prepare for the Medication Therapy Management course and the other Pharmacotherapy courses.

**Prerequisite:** [PHM113H1](#); [PHM142H1](#); [PHM144H1](#); [PHM145H1](#); [PHM146H1](#)

**Corequisite:** [PHM105H1](#); [PHM141H1](#); [PHM143H1](#)

### PHM105H1 Medication Therapy Management 1

**Hours:** 12L/27P

Medication Therapy Management (MTM) involves a partnership between the patient, pharmacist, and other healthcare providers to promote safe and effective medication use so that desirable patient outcomes are attained. It is founded on the philosophy of Pharmaceutical Care, and may encompass an array of services, whereby the pharmacist employs a systematic patient-centered approach to define and achieve goals related to optimal pharmacotherapy. The MTM series of courses will be delivered longitudinally over three years of the undergraduate program, with MTM 1 being the first of the four-part course series. MTM 1 will allow students to begin to apply knowledge and develop skills needed to undertake MTM, with content drawn from co-requisite and pre-requisite courses. Lecture and laboratory sessions will be designed to facilitate guided, independent, and collaborative learning. A key element of MTM 1 is that students will have the opportunity to undertake the role of a pharmacist in a simulated community practice and will be responsible for various tasks such as conducting patient interviews, assessing the appropriateness of pharmacotherapy, providing medication-related patient education, actively participating in the medication-dispensing process, responding to drug information queries from patients and health care providers, documenting pharmacotherapeutic recommendations, and interpreting the pharmacist's ethical and legal obligations within provincial and federal regulatory frameworks. This course will introduce and develop fundamental knowledge, skills and attitudes intrinsic to the pharmacy student's professional identity development; these attributes will be transferable to diverse practice settings, and prepare students for their first year early experiential rotation.

**Prerequisite:** [PHM110H1](#); [PHM113H1](#); [PHM130H1](#)

**Corequisite:** [PHM101H1](#); [PHM114H1](#); [PHM141H1](#)

### PHM110H1 Health Systems

**Hours:** 26/4T

This course introduces pharmacy students to Canada's health care system, including the structures, functions and the policies that underpin health care services. Students will learn about the roles and responsibilities of the key health care providers in a variety of health care settings. Students will gain insight into how and where pharmacy and medications fit within the larger system of care. Historical context will be used to explain why the health care system exists and critical reflection will be encouraged to explore how and why the system may be evolving, especially with respect to the roles that pharmacists and other professionals play within the system. The course provides an introduction to essential management, communication, leadership, and interprofessional skills that are required by health care professionals. Interprofessional collaboration is a key component to optimal patient care and an efficient health care system. Students will participate in small groups with other health professional students to explore team work, roles and team dynamics.

**Prerequisite:** [PHM110H1](#)

### PHM113H1 Pharmacy Informatics

**Hours:** 11L/2T

Pharmacy informatics introduces students to two core types of information: 1) patient-specific information created in the care of patients and 2) knowledge-based information, which includes the scientific literature of health care. Informatics also implies the use of technology in managing information and knowledge. Students will develop the introductory knowledge and skills to assume responsibility for identifying, accessing, retrieving, creating and exchanging relevant information to ensure safe and effective patient care throughout the medication use process. This course will utilize an innovative e-Resource and ample opportunity to develop skills in this emerging area.

## PHM114H1 Social and Behavioural Health

**Hours:** 24L/6T

This course is composed of three components: 1) introduction to sociological theories and concepts that impact health and health care; 2) introduction to professionalism and ethics and 3) introduction to the ways in which individual psychology shapes and affects health and health care. Topics such as the social determinants of health and related ethical issues; the social construction of disease; and the exploration of when and why people seek health care services will be used to stimulate discussion about how social forces impact pharmacy practice. Codes of ethics and other ethical principles for guiding professional practice in pharmacy will be discussed through the analysis of ethics cases. Behaviouralist, cognitivist, developmentalist, and psychoanalytic theories will be used to help students understand the range of responses and behaviours individuals may demonstrate when dealing with health-related issues. Students will apply these theories to discussion of different patient education (counselling) approaches designed to optimize personal and health-related outcomes.

## PHM130H1 Pharmaceutical Calculations

**Hours:** 13L

As pharmacists, you are expected to integrate your knowledge and skills gained throughout the pharmacy curriculum to provide direct patient care. Pharmacy practice is calculations intensive and accuracy is critically important to safe and effective patient care. As medication therapy experts, patients and other health care providers value and depend on pharmacists' expertise and accuracy in pharmaceutical calculations. Throughout the course, students will be required to complete pharmaceutical calculations with a focus on accuracy. A case based approach will be taken to familiarize students with real life examples of common calculations required to practice in community and hospital settings. The objective of this course is to prepare the student to apply knowledge and skills gained to other courses in the program, such as the early practice experience (EPE 1).

## PHM140H1 Molecular Pharmacology

**Hours:** 39L

Many drugs act via the receptors and other proteins that mediate cellular signalling. Such proteins can be grouped into several families on the basis of their structural and functional similarities. Examples from each family are examined at the molecular level from a pharmacological, biochemical and biophysical point of view for insight into their structure, their mechanism of action, their modulation by drugs and the underlying dysfunctions toward which the drugs are directed. Basic principles of molecular pharmacology are introduced as a tool for decoding the relationship between dose and response across all families, with an emphasis on the explicit nature of concepts such as potency and efficacy.

**Prerequisite:** PHM142H1

## PHM141H1 Pharmaceutics

**Hours:** 39L

Achieving effective treatment of a disease while minimizing adverse effects of a drug requires rational selection, formulation and administration of an appropriate dosage form. This course teaches the scientific background and technical aspects important in dosage form design, basic dosage forms and their therapeutic applications. This course will focus on the biopharmaceutical considerations and physicochemical foundation of various dosage forms. Discussion will include preformulation factors (melting point, solubility, viscosity, dissolution, particle and solid state properties), rheology, pharmaceutical solutions, pharmaceutical powders, colloids and dispersions, complexation, chelation, and protein binding.

## PHM142H1 Metabolic Biochemistry and Immunology

**Hours:** 26L/13T

This course examines aspects of mammalian biochemistry, metabolism and molecular immunology pertinent to pharmacologically significant drug actions in vivo. Where appropriate the biochemical basis, mechanism, and effect of specific drugs on human physiology are also discussed. In addition this course examines the biochemical basis of pharmacogenetics and metabonomics differences seen in different human populations.

## PHM143H1 Pathobiology and Pathology

**Hours:** 36L/3T

This course is designed to introduce pharmacy students to the physiological and biochemical mechanisms which lead to pathological states and includes the laboratory investigation and follow-up associated with specific diseases.

**Prerequisite:** PHM145H1

### **PHM144H1 Pharmacokinetics**

**Hours:** 33L/6T

This course will examine how physiologic and biochemical processes influence the fate of drugs in the body. The interrelationship between the physiochemical properties of the drug and the rate/extent of absorption will be explored. Mathematical modeling of the plasma concentration time curves following drug administration will constitute a major part of the course. Fundamental pharmacokinetic principles and quantitative relationships will be used to determine approaches in designing dosage regimens, evaluating pharmacologic response and explaining mechanisms of drug-drug interactions. The resulting theory will form the basis for selecting a particular route of drug administration, determining the frequency of administration and identifying patient factors which require a modification of normal drug dosing regimen.

### **PHM145H1 Human Histology and Anatomy**

**Hours:** 39L

This course introduces the student to the structure of the human body and its relationship to function. Following an introduction to basic human histology, the course will use a systemic approach to the study of human anatomy.

### **PHM146H1 Fundamentals of Pharmacology**

**Hours:** 13L

This course will introduce students to fundamental principles of pharmacology. The principles of drug receptor interactions will be examined and various examples of protein targets of drug action shall be presented. The pharmacology of drugs that modify fundamental physiological processes such as the autonomic nervous system and endocrine and autocrine pathways will also be examined to serve as a background for future pharmacotherapy modules.

**Corequisite:** PHM145H1

### **PHM151H1 Early Practice Experience 1**

**Hours:** 1+2L/160P

This course is the first of two early experiential rotations. Students will undertake this first EPE-1 during the summer following Year 1 (sometime between May and August). Each student will actively participate in day-to-day services within a community pharmacy practice setting, thus enabling application of knowledge, skills and values introduced in faculty-based courses and simulated practice environments (laboratories). Required activities include prescription/medication order processing, patient education, drug information provision, medication history taking, and observation of/participation in patient safety processes in the practice setting. Students also need to demonstrate effective communication skills, professionalism and teamwork during the rotation.

**Prerequisite:** PHM101H1; PHM105H1; PHM110H1; PHM113H1; PHM114H1

### **PHM201H1 Pharmacotherapy 2: Self-Care Perspectives and Pharmacotherapy**

**Hours:** 20L/19T

Self-care perspectives and pharmacotherapy is the second in a series of Pharmacotherapy courses taught over three years. In addition to covering selected therapeutic topics relating to self-care, (primarily dermatology and EENT) the course will address principles of drug therapy in the practice context of self-care in which pharmacists work unsupervised as the primary health professional contact. It will build and enhance students' knowledge and skills in the management of minor, self-limiting and self-diagnosed ailments, which is within the scope of practice for pharmacists. Special contextual issues relating to the pharmacist's role in self-care, particularly communicating with patients; and the pharmacist's responsibility in accurately assessing and triaging patients, developing care plans and monitoring for this patient population, including special populations of concern. Issues of preventing drug therapy problems related to patient self-selection will be part of patient safety concerns. This course will build on content and skills from PHM101H1 and PHM105H1. The course will be aligned to the other Pharmacotherapy modules and will provide the required knowledge, skills, attitudes and behaviours to effectively manage patients' drug therapy in incorporating relevant schema recognition, pathophysiology, pharmacology, clinical pharmacokinetics, pharmaceuticals and evidence-based authoritative sources of best practice pharmacotherapy.

**Prerequisite:** PHM101H1; PHM105H1; PHM113H1; PHM140H1; PHM141H1; PHM145H1; PHM146H1

**Corequisite:** PHM205H1; PHM241H1; PHM242H1

## PHM202H1 Pharmacotherapy 3: Endocrinology, Nephrology and Urology

**Hours:** 20L/19T

This course is designed for pharmacy students to develop a broad understanding of pathophysiology, pharmacology, clinical pharmacokinetic and pharmacotherapy in major areas of endocrinology, nephrology and urology. The course will use a problem-based approach with emphasis on the integration and application of fundamental principles to specific clinical situations.

**Prerequisite:** PHM101H1; PHM105H1; PHM113H1; PHM140H1; PHM141H1; PHM142H1; PHM143H1; PHM144H1; PHM145H1; PHM146H1

**Corequisite:** PHM205H1

## PHM203H1 Pharmacotherapy 4: Infectious Diseases

**Hours:** 27L/12T

This course is designed to provide students with the knowledge in pathobiology, pharmacology, pharmacotherapy, clinical pharmacokinetics and relevant pharmaceuticals required to be a practitioner in infectious diseases therapeutics. The course will be taught using a variety of techniques including on-line lectures, case-based learning and small interactive group learning.

**Prerequisite:** PHM101H1; PHM105H1; PHM113H1; PHM140H1; PHM141H1; PHM142H1; PHM143H1; PHM144H1; PHM145H1; PHM146H1; PHM205H1; PHM212H1; PHM242H1

**Corequisite:** PHM206H1; PHM230H1

## PHM204H1 Pharmacotherapy 5: Cardiovascular Diseases

**Hours:** 24L/15T

This course is designed to provide students with the knowledge in pathobiology, pharmacology, pharmacotherapy, and clinical pharmacokinetics required to be a practitioner in cardiovascular therapeutics. The course will be taught using a variety of techniques including lectures and team-based learning.

**Prerequisite:** PHM101H1; PHM140H1; PHM141H1; PHM142H1; PHM143H1; PHM144H1; PHM146H1

**Corequisite:** PHM206H1

## PHM205H1 Medication Therapy Management 2

**Hours:** 12L/1T/26P

This Medication Therapy Management (MTM) course is the second of the four-part series of simulated pharmacy practice courses. MTM 2 will enable a student to continue to apply knowledge and develop skills needed by a pharmacist to provide patient care, using a systematic patient-care process to define and achieve the goals of optimizing safe, effective pharmacotherapy. MTM 2 course content is drawn from relevant co- and pre-requisite courses. Lectures and simulated practice sessions are designed to facilitate independent and collaborative learning that will be transferrable to diverse practice settings and prepare a student for early experiential learning. Students will be responsible to perform and document a comprehensive patient assessment to identify, resolve and prevent drug therapy problems, and educate patients on the appropriate use of medications. Students will be required to assess a patient's health status; integrate relevant information to recommend appropriate therapy, determine efficacy and safety endpoints for monitoring therapy, document a care plan, and appropriate follow-up parameters with patients to evaluate their response to therapy, in a simulated practice environment. Students will also actively participate in the medication dispensing process, prepare extemporaneously compounded pharmaceutical products and interpret the pharmacist's professional, ethical and legal obligation within provincial and federal frameworks.

**Prerequisite:** PHM101H1; PHM105H1; PHM114H1

**Corequisite:** PHM201H1; PHM202H1

## PHM206H1 Medication Therapy Management 3

**Hours:** 12L/3T/24P

Medication Therapy Management 3 (MTM 3) is the third of a four-part series of simulated pharmacy practice courses that is delivered longitudinally over three years of the undergraduate program. MTM 3 builds on the skills developed in MTM 1 and MTM 2, focusing on more comprehensive, integrated patient centred care. MTM is founded on the philosophy of Pharmaceutical Care and involves a partnership between the patient, pharmacist, and other health care providers to promote safe and effective medication use to achieve desirable patient outcomes. MTM 3 provides students learning opportunities to apply and integrate materials learned through all courses in the curriculum to date, using simulated practice-based interactions to enhance their patient-care skills. Lectures will provide foundational material and skills which will be applied in the simulated interactions. Simulated interactions will focus on developing effective patient-centered

management of multidimensional drug-therapy anchored in a professional context, in preparation for the student's second year practice experiential course.

**Prerequisite:** [PHM201H1](#); [PHM202H1](#); [PHM205H1](#); [PHM212H1](#)

**Corequisite:** [PHM203H1](#); [PHM204H1](#); [PHM230H1](#)

### **PHM212H1 Research Methods for Pharmacy**

**Hours:** 21L/11T

Pharmacists are required to apply research evidence in practice. As health care providers, pharmacists discern and translate both the quality and relevance of health information with the goal of optimizing patient outcomes. This course introduces students to clinical trial designs typically used in health care. The course will explore core principles in experimental and non-experimental research designs. The focus will be on randomized controlled trials as they are the primary method of generating evidence for therapeutic interventions. Students will learn how various research approaches are selected, designed, executed, analyzed, published and applied (including critical appraisal). The course covers a broad range of research topics at the introductory to intermediate level. Students will develop foundational knowledge and skills in research methods, statistics and ethics that will be applied in pharmacotherapy modules.

### **PHM213H1 Health Economics and Pharmacoeconomics**

**Hours:** 24L/2T

This course surveys the economic aspects of the pharmaceutical sector. The course will use the methods of economic analysis to investigate how markets allocate resources, when they work well and the role for government when they do not work well. Specific topics include the economics of the development of new drugs; economic aspects of drug insurance, economic appraisal of new drugs ("pharmacoeconomics"); and economic models of the pharmacist labour market.

### **PHM215H1 Management: Skills, Communication and Collaboration**

**Hours:** 26L/6T

Management skills and related communication and collaboration skills are essential for success in any field of pharmacy practice. This course will provide students with an introduction to basic concepts in management, communication and collaboration with other health and business professionals, and will culminate with the development of a business plan that enables students to apply knowledge and skills. This course is also designed to give students a broad overview in collaborative leadership theory so that they are better prepared to work effectively in their chosen field. Students will learn how pharmacy practice in different settings has evolved from 1985 to 2000 to 2015 as well as how practice may evolve in the future. In doing so students will develop a greater appreciation of the skills required to deliver effective patient care-focused services. Overall, the aim of this course is to equip students with the ability to apply their clinical, pharmaceutical and management skills to provide high quality services that are patient focused and demonstrate value for money.

**Prerequisite:** [PHM110H1](#)

### **PHM230H1 Physical Assessment and Injection Techniques**

**Hours:** 29L/9P

This course will provide an introduction to physical assessment of patients. Students will engage in lectures, on-line activities, and skills practice in a laboratory setting. This course includes a module pertaining to the administration of substances by injection that allows students to meet the competencies required by the Public Health Agency of Canada and the Ontario College of Pharmacists.

**Prerequisite:** [PHM143H1](#); [PHM145H1](#); [PHM201H1](#); [PHM202H1](#); [PHM205H1](#)

**Corequisite:** [PHM203H1](#); [PHM204H1](#); [PHM206H1](#)

### **PHM240H1 The Science of Pharmacotherapy**

**Hours:** 26L

This course will build upon basic pharmacology and medicinal chemistry to make links between the basic sciences and demonstrate how basic principles can be used to improve clinical therapy. It will also include critical evaluation of evidence for specific mechanisms and therapies. The format of the course to address these issues will be online questions that are designed to illustrate these points. The questions will be either multiple choice or short answer. Online feedback will be provided.

**Prerequisite:** [PHM140H1](#); [PHM142H1](#); [PHM144H1](#); [PHM212H1](#)

## PHM241H1 Topics in Pharmaceutical Quality and Clinical Laboratory Medicine

**Hours:** 10L/2T/24P

This course will provide an introduction to pharmaceutical analysis and discuss the importance of assuring the pharmaceutical quality of medicinal products with an emphasis on establishment of quality control assays and specifications, bioequivalence testing of generic drugs, special considerations for biopharmaceutical products, and the regulatory process in Canada. In addition, the course will discuss the application of analytic techniques in clinical laboratory medicine with a focus on commonly used tests to monitor patient health and the therapeutic use of drugs, including tests for personalized drug therapy. The course includes a laboratory component which will present drug formulation and related quality control issues.

**Prerequisite:** PHM141H1; PHM144H1

## PHM242H1 Microbiology of Infectious Diseases

**Hours:** 38L/1T

The course provides a brief introduction to the general biology of organisms, and an overview of the host response to infection. Attention is then focused on common bacterial, fungal, viral and parasitic infections of man, and their epidemiology, prevention and treatment. Other topics include sterilization, disinfection, and a survey of antibiotics and chemotherapeutic agents.

**Prerequisite:** PHM142H1

**Corequisite:** PHM201H1

## PHM251H1 Early Practice Experience 2

**Hours:** 2+2L/160P

This course is the second of two early experiential rotations. Students will undertake EPE-2 during the summer following Year 2 (sometime between May and August). Each student will actively participate in day-to-day services within an institutional pharmacy practice setting, thus enabling application of knowledge, skills and values introduced in faculty-based courses and simulated practice environments (laboratories). Required activities include prescription/medication order processing, patient education, drug information provision, medication history taking, and observation of/participation in patient safety processes in the practice setting. Students also need to demonstrate effective communication skills, professionalism and teamwork during the rotation.

**Prerequisite:** PHM151H1; PHM201H1; PHM202H1; PHM203H1; PHM204H1; PHM205H1; PHM206H1

## PHM301H1 Pharmacotherapy 6: Hematology, Oncology and Immunotherapies

**Hours:** 27L/12T

This course is designed to provide pharmacy students with the pathobiology, pharmacology, pharmacotherapy and clinical pharmacokinetics required to be a practitioner in oncology, hematology and immunology therapeutics. The course will be taught using a variety of techniques including on-line lectures, case-based learning and small interactive group learning.

**Prerequisite:** PHM101H1; PHM105H1; PHM113H1; PHM140H1; PHM141H1; PHM142H1; PHM143H1; PHM144H1; PHM145H1; PHM146H1; PHM201H1; PHM202H1; PHM203H1; PHM204H1; PHM205H1; PHM206H1; PSL205H1

**Corequisite:** PHM302H1; PHM305H1

## PHM302H1 Pharmacotherapy 7: Neuropsychiatry

**Hours:** 27L/12T

This course is designed to provide pharmacy students with the knowledge in pathobiology, pharmacology, pharmacotherapy and clinical pharmacokinetics required to be a practitioner in neuropsychiatric therapeutics. The course may be taught using a variety of techniques including on-line lectures, case-based learning and small interactive group learning.

**Prerequisite:** PHM101H1; PHM113H1; PHM140H1; PHM141H1; PHM142H1; PHM143H1; PHM144H1; PHM145H1; PHM146H1; PHM212H1; PSL205H1

## PHM305H1 Medication Therapy Management 4

**Hours:** 12L/3T/24P

Medication Therapy Management 4 (MTM 4) is the final course in a four-part course series that is delivered longitudinally over three years of the undergraduate program. MTM 4 builds on the skills developed in previous MTM courses, offering students opportunities to apply and integrate materials learned through all courses in the curriculum to date. This course

focuses on the development of skills required for Expanded Scope of Practice (renewing, modifying and initiating pharmacotherapy) and specifically medication reconciliation. Lectures and applied Simulated Practice Sessions emphasize the pharmacists' role and responsibilities as a communicator, care provider, collaborator and advocate, to prepare students for their Advanced Pharmacy Practice Experience rotations.

**Prerequisite:** [PHM101H1](#); [PHM202H1](#); [PHM203H1](#); [PHM204H1](#); [PHM206H1](#); [PHM251H1](#)

**Corequisite:** [PHM301H1](#); [PHM302H1](#); [PHM310H1](#)

### **PHM310H1 Pharmacy in the Modern Health Care System**

**Hours:** 22L/4T

This course will take an issues-oriented, critical-thinking approach to the healthcare system, with a particular emphasis on pharmacy practice. The course will build on the material from [PHM110H1](#), [PHM114H1](#) and [PHM215H1](#), and will allow a deeper look into areas such as quality and patient safety, e-health technology and the health care needs of diverse populations, including Indigenous peoples. Students will also have an opportunity to explore the role of interprofessional collaboration in health care delivery. Week by week students will examine issues with drug supply and access, pharmacy practice reform, expanded services, collaborative care and reimbursement models, and the interconnectivity of the disparate parts of the health care system. By participating in class discussions, reading course reference materials and completing assignments, students will learn to identify and analyze current and emerging health system issues. In the course of doing so, they will also become aware of, understand and appreciate: factors internal and external to pharmacy and medication use that drive change in practice current strategies for evaluating and improving health care and pharmacy practice the role of interprofessional collaboration in the delivery of healthcare emerging roles and opportunities in pharmacy. This course will help students complement their thinking about medications, individual patients, and the clinical encounter with an orientation to the healthcare system as a whole: how it functions, what are some of its key issues, and how do we tackle them.

**Prerequisite:** [PHM110H1](#); [PHM114H1](#); [PHM213H1](#); [PHM215H1](#)

### **PHM320H1 Global Pharmaceutical Policy**

**Hours:** 24L/2T

This course is designed for students who are curious to learn about pharmaceutical public policy at the global level and also to explore the interrelationship between global and domestic health public policy issues, particularly those related to political economy and the governance of the pharmaceutical system. There are no prerequisites required but students are strongly recommended to have taken at least one social science or public health course given the ample reading and research requirements. Particular emphasis will be placed on how governments in different jurisdictions manage their public health responsibilities, particularly in terms of providing access to essential medicines and human development objectives, the tension between economic and health objectives, global trade obligations and their impact on access to medicines, and how pressure from special interest groups are relevant to pharmaceutical policy. Corruption issues will also be addressed. This course encourages a large amount of student participation through group work, discussion, presentations, and debate. Accordingly, students will need to keep up with the weekly readings in order to ensure that they are prepared for the class.

### **PHM321H1 Selected Topics in the Pharmaceutical Industry**

**Hours:** 26L

This course is designed to expose students to the pharmaceutical and biopharmaceutical industries, its environment, inner workings, and approach to engaging customers and stakeholders. The course outlines the business model of the industry and covers both drug development and commercialization, from international and Canadian perspectives. The course is intended to broaden the students' understanding of the industry, introduce critical concepts and terminology, build confidence and prepare students who may seek a career in the industry.

### **PHM322H1 Patient/Medication Safety**

**Hours:** 16L/10T

This course will look at patient safety and the potential for medication incidents from two aspects: (1) the medication-use system (e.g., prescribing, order entry, dispensing, administration, and monitoring of drug therapy); and (2) professional practice (e.g., preventable adverse drug events). It will build on topics previously covered in the curriculum, as well as additional materials related to the Institute for Safe Medication Practices Canada, the Canadian Patient Safety Institute, and the concept of continuous quality improvement in pharmacy practice.

### **PHM323H1 Molecular Mechanisms of Drug Action**

**Hours:** 26L

The proteins and nucleic acids that are the targets of most prescribed drugs can be classified according to their structure and mechanism of action at the molecular level. In this course, basic concepts of enzyme action such as the mechanisms of enzyme catalysis, the Michaelis-Menten and pre-equilibrium equations, steady-state approximations, allostery and cooperativity will first be covered. Major classes of therapeutic targets will then be discussed with an emphasis on their normal biochemical roles that are exploited for therapeutic intervention. The mechanisms of action of drugs acting on enzymes (antiviral and antimicrobial agents) on nucleic acids and on the cytoskeleton (anti-cancer agents) will be of special interest. The concept of rational cancer therapy will also be covered with examples of drugs targeting growth factors signalling pathways that are dysregulated in cancers.

### **PHM324H1 Recent Developments in Dosage Form Design**

**Hours:** 26L

This course introduces students to fundamental principles and mathematical tools for the design of modern dosage forms as well as new advances in the field of controlled release drug delivery. Topics to be covered include introduction to controlled drug delivery, mechanisms and kinetics of drug release and their dependence on design parameters, biopharmaceutical aspects of controlled drug delivery, in vitro and in vivo correlations, computer-aided design of controlled release dosage forms, polymers and hydrogels for drug delivery, colloidal drug delivery systems, and measurements of drug release profiles. This course is co-taught to graduate students, senior Pharmaceutical Chemistry students and PharmD students.

**Prerequisite:** [PHM141H1](#); [PHM144H1](#)

### **PHM325H1 Indigenous Issues in Health and Healing**

**Hours:** 22L/4T

This course examines the many issues surrounding the health of Indigenous people living in Canada. During the 13 weeks of class, students will come to understand the present day health issues of Indigenous peoples from the perspective of their historical and political context and the effects of health care policy. The many highly qualified speakers from the Indigenous community and its focus on health and the healing process make this course unique in the university. Optional, but strongly recommended, field trips include a "medicine walk" on the Six Nations reserve in which students will be able to see firsthand the source of some of the herbal preparations that are used in healing, and a purification (sweat) lodge ceremony outside the city. The course is enriched by its association between students of the Leslie Dan Faculty of Pharmacy and the Indigenous Studies program in the Faculty of Arts, and Science, many of whom are of Indigenous origin.

### **PHM330H1 Preparation for Advanced Pharmacy Practice Experience**

**Hours:** 28L/8P

The Preparation for Advanced Pharmacy Practice Experience (APPE) course is designed to strengthen and integrate students' knowledge, skills, and attitudes in preparation for, and make the transition to, APPE rotations. This course, via lectures, workshops, case-based role play activities and related assignments and assessments, will enable students to review, build on, consolidate and apply previous knowledge, skills and behaviours acquired throughout the curriculum in academic courses and in earlier experiential rotations in the areas of patient care provision, communication, collaboration, management, advocacy, scholarship, and professionalism. (CanMEDS, 2005, AFPC, 2010). The goal of this course is to engender students' practical skills and strategies to help prepare them for the role of advanced pharmacy practice students.

### **PHM340H1 Introductory Toxicology**

**Hours:** 26L

Concerned primarily with drug-induced diseases, this lecture course provides students with a conceptual framework for understanding the broad spectrum of toxicological problems encountered in clinical practice, in drug development and regulation, and in medical research. Central biochemical mechanisms and the relevance of clinical factors to toxicological expression will be integrated and applied to illustrative models of drug-related diseases in humans.

**Prerequisite:** [PHM140H1](#); [PHM142H1](#); [PHM143H1](#); [PHM144H1](#); [PHM145H1](#); [PSL205H1](#)

## PHM350H1 Pharmacotherapy in Ambulatory Care

**Hours:** 14L/12T

Ambulatory care pharmacists are accountable for addressing drug therapy needs and developing sustained partnerships with patients in an outpatient environment. They practice in primary care, family health teams, community pharmacies and specialty clinics. This practice can be independent or in a collaboration with other health care providers. Ambulatory care pharmacists require the knowledge and skills to triage, prescribe, administer and monitor medication therapies. They provide pharmaceutical care to patients with a variety of medical conditions and levels of acuity. This course will provide students with the knowledge, skills, and values to be a contemporary ambulatory care practitioner with an emphasis on ambulatory care sensitive conditions, preventative care, minor ailments and natural health products.

**Prerequisite:** PHM101H1; PHM105H1; PHM146H1; PHM201H1; PHM202H1; PHM203H1; PHM204H1; PHM205H1; PHM206H1; PHM230H1; PHM305H1

## PHM351H1 Pharmacotherapy in Institutional Care

**Hours:** 14L/12T

Institutional pharmacists are accountable for addressing drug therapy needs with patients in an inpatient environment. Students will learn to apply therapeutics that are commonly seen when caring for a hospitalized patient. Some of the topics included are: IV therapeutics (fluid and electrolytes), acute pain management, VTE prophylaxis, diabetic ketoacidosis and in-hospital management of diabetes, perioperative medication management. Topics may include a brief introduction to critical care and some aspects of emergency medicine. Aspects of patient and medication safety will be integrated into the course.

**Prerequisite:** PHM101H1; PHM113H1; PHM140H1; PHM141H1; PHM142H1; PHM144H1; PHM146H1; PHM305H1; PHM340H1

## PHM352H1 Pharmacotherapy in Older Adults

**Hours:** 14L/12T

Growth in the proportion of the population over age 65 is expected to place significant demands on the health care system. Pharmacists must be prepared to manage the pharmacotherapy of older patients in order to achieve optimal individual and health system outcomes. This 26-hour selective course will prepare students for their future roles in geriatric practice through the development of specific competencies in the knowledge and application of pharmaceutical care for older adults. This course will cover demographics, biology and pathophysiology of aging, socioeconomics, ethical issues, and beliefs and barriers regarding health care and medication use in older individuals. Communication issues, unique needs of caring for seniors, and barriers to medication taking will also be addressed. Specific pharmacotherapy of conditions prevalent in the elderly, including movement disorders, dementia, urinary incontinence, and specific drug-induced illnesses and adverse events will be covered. This course will rely on both didactic and case-based discussions to demonstrate and enable students to develop skills integral to patient assessment and optimizing drug therapy in the older adult with complicated diseases and medication history.

**Prerequisite:** PHM101H1; PHM143H1; PHM144H1; PHM145H1; PHM146H1; PHM202H1; PHM203H1; PHM204H1; PHM205H1; PHM301H1; PHM302H1

## PHM353H1 Pharmacotherapy in Critical Care

**Hours:** 22L/4T

This course is designed to expose students to hospital-based clinical pharmacy practice, with a focus on the Intensive Care Unit (ICU). Various topics that encompass commonly encountered clinical conditions of patients in the ICU will be discussed, with an emphasis on the role of pharmacotherapy. Students will also be introduced to the role of multidisciplinary team members integral to the ICU including the respiratory therapist, nurse, ethicist and intensivist (pending availability). The course will be taught using traditional classroom lectures, case-based discussions, small-group learning projects, and self-directed learning. Student participation both within the classroom and online, and in group work assignments is expected.

## PHM354H1 Pharmacotherapy in Pediatrics

**Hours:** 26L

This course builds on general knowledge and skills gained in the first three years of pharmacotherapy courses. It allows students to gain the fundamental pharmacotherapeutic knowledge and practice skills to care for patients from the neonatal period to the adolescent years. In addition to covering evidence-based pharmacotherapy of several pediatric conditions, the course integrates relevant normal development and physiology (fetal, neonatal, infant, child and adolescent), pathophysiology, clinical pharmacokinetics, medication safety, poison prevention, and patient (through the

ages) and caregiver education. Each week the course will consist of two hours of lectures and group case discussions primarily presented by pediatric clinicians from Sick Kids Hospital. The course allows students to effectively manage pediatric patients' medication therapy in selected pediatric conditions, prepares the student for pediatric direct patient care (DPC) and non-direct patient care (NDPC) rotations, and encourages a career in pediatric pharmacy practice.

**Prerequisite:** [PHM101H1](#); [PHM113H1](#); [PHM144H1](#); [PHM146H1](#); [PHM202H1](#); [PHM203H1](#); [PHM204H1](#)

### **PHM355H1 Pharmacotherapy in Women's Health**

**Hours:** 24L/2T

Medications used in the care of Canadian women are amongst the most commonly prescribed pharmaceuticals. This course is designed to allow the student to obtain fundamental pharmacotherapeutic knowledge of medications used from menarche to menopause. This course will encourage students to develop a practice that provides quality care to women.

**Prerequisite:** [PHM202H1](#); [PHM206H1](#)

### **PHM360H1 Personalized Medicine**

**Hours:** 6L/20T

This course builds upon fundamental pharmacokinetic concepts taught in the first and second years in order to understand, describe and predict the sources of intra- and inter-individual variability in drug disposition and response in different patient population groups. The course is designed for students to understand the underlying basic principles used to individualize drug and dosage regimens for patients based on genetic, physiological and environmental factors. Critical evaluation of evidence and review of current guidelines for dose or drug adjustments based on genetic factors and the potential for drug-diet, drug-drug or drug-disease interactions will be covered. Recent advances in pharmacogenomics and targeted drug therapy will also be covered. The format of the course to address these issues will be student presentations and in-class discussion of specific questions that are designed to illustrate these points.

**Prerequisite:** [PHM140H1](#); [PHM144H1](#)

### **PHM361H1 Latest Developments in Drugs and Biologics**

**Hours:** 12L/14T

This course will cover all aspects of new drugs and biologics approved in the preceding 12 month period, together with those that entered phase III clinical trials during the same period. This is a unique course in the curriculum that will discuss the latest on new drugs and biologics. Approximately 50% of the lectures will be delivered using traditional methods, covering new drugs and for the remainder of the classes, pre-selected pharmacy student groups will present their projects in new drugs and biologics. Instruction materials and reference materials will be drawn from Health Canada, FDA, scientific literature and drug information files.

### **PHM362H1 Assessing the Bioavailability and Bioequivalence of Medicinal Drug Products**

**Hours:** 24L/2T

This course introduces regulatory, clinical, statistical and logistical considerations in assessing the relative bioavailabilities of formulations. A heavy emphasis is placed on clinical trial design, and biostatistics involved in second entry drug applications to regulatory bodies. Students will learn about the methods, regulations, techniques, pharmacokinetics, and biostatistics involved in creating bioequivalence studies, at an introductory level. The course has a heavy mathematical bias with a component dedicated to mathematical modeling and basic programming in R-project, an open source statistical package. After taking this course, students will understand the steps required to set up single-dose or steady-state pilot and pivotal bioequivalence trials using parallel, crossover and replicate designs. Students will be able to take a data set of plasma concentrations and be able to process and interpret the results of the trial. Students will gain a deeper understanding and context of the regulatory differences involved in generic drug testing between Canada, the United States and Europe.

**Prerequisite:** [PHM141H1](#); [PHM144H1](#); [PHM241H1](#)

### **PHM370H1 Community Pharmacy Management**

**Hours:** 26L

A comprehensive program outlining the issues and topics which are critical in the successful operation of a community pharmacy practice including: selection of organizational structures, demographic review, financial analysis, business plan development, purchasing and financing a community pharmacy, operational workflow, financial management, risk management and insurance, inventory purchasing procedures and inventory management, pricing decisions, marketing strategy, advertising, sales promotion and salesmanship, ethics, security and general business policies. Building on the

basic principles taught in [PHM215H1](#), this course expands into a case based learning application of business administration which offer students exposure to Finance, Operations, Organizational Behaviour, Innovation and General Management as applied to the field of Pharmacy and Healthcare. The cases will provide students with the opportunity to develop skills for effective analysis, evaluation and problem-solving. To do this, students will learn about basic analytical tools (e.g., projections, break-evens, communication, organization theory) and will then be required to apply these tools using case methodology. Students will be given the opportunity to practice decision-making with imperfect information under time constraints and develop business writing skills. Preparation of a detailed business plan will also be a mandatory component for this course.

**Prerequisite:** [PHM215H1](#)

### **PHM371H1 Institutional Pharmacy Practice Management**

**Hours:** 24L/2T

This course builds on the principles taught in [PHM215H1](#) Management: Skills, Communication and Collaboration with specific application to an institutional setting. By means of lectures and case discussions, students will gain the knowledge, skills and attitudes that are required to successfully practice in a hospital environment. A focus of the course will be on critical thinking, problem solving and project management.

**Prerequisite:** [PHM215H1](#)

### **PHM381H1 Medical Imaging for Pharmacists**

**Hours:** 19L/7T

This course will discuss the principles and applications of medical imaging in patient care. There will be an emphasis on radiopharmaceuticals and nuclear medicine imaging (SPECT and PET) but other imaging technologies will be discussed including MRI, ultrasound, X-ray, mammography and CT. These technologies are applied in diagnosing infectious disease, cancer, cardiovascular disease, hepatobiliary and renal dysfunction, and neurological disorders. The emerging role of molecular imaging using PET and SPECT in selecting patients for personalized medicines for cancer as well as monitoring response to these new therapies will be introduced.

**Prerequisite:** [PHM202H1](#); [PHM204H1](#); [PHM241H1](#); [PHM301H1](#)

### **PHM383H1 Antimicrobial Stewardship**

**Hours:** 16L/10T

Antimicrobial Stewardship is an inter-disciplinary, multi-faceted approach to optimize antimicrobial use. While the ultimate goal of Antimicrobial Stewardship is to improve patient outcome, appropriate and effective use of antimicrobials is an important component to control antimicrobial resistance, minimize unintended consequences such as *C. difficile* infections, and to contain health care costs. As of 2013, presence of an active Antimicrobial Stewardship Program has been made a Required Operating Practice for acute care hospitals and long-term care facilities by Accreditation Canada. This course expands and deepens knowledge gained from the Year 2 Infectious Diseases Pharmacotherapy and Microbiology courses, with an emphasis on clinical application within the antimicrobial stewardship context. It will introduce students to the principles of antimicrobial stewardship to facilitate rational selection of antimicrobial regimens; stewardship interventions; quality improvement methods; as well as program development, implementation and evaluation. The course culminates to a team proposal presentation for an antimicrobial stewardship program based on a fictitious institution's profile. Each team is tasked with convincing a panel of judges, who in practice are antimicrobial stewardship clinicians or program executives, to support their proposed program.

**Prerequisite:** [PHM203H1](#); [PHM242H1](#)

### **PHM384H1 Teaching and Learning**

**Hours:** 16L/6T/4P

The educator role for pharmacists is broad and involves diverse roles, including teaching patients, designing and delivering continuing education, mentoring/precepting students, and educating other care professionals in small and large group settings. In order to provide students with the knowledge, skills, and abilities necessary to fulfill this mandate, a course in educational theories and methods is important. Material from this course will be applied in a practical sense to pharmacy practice courses and experiential learning activities. Specific topics to be covered in the course will include: development of behavioural learning objectives, learning theories, teaching techniques for various audiences, assessment tools, methods, and techniques and educational practice as a professional.

## PHM385H1 Diabetes Care

**Hours:** 26L

This course provides many of the theoretical and practical aspects of diabetes management needed in providing comprehensive diabetes care. The goals and objectives of the course are modeled on the requirements for the Certified Diabetes Educator Exam and will provide much of the background needed in preparation for writing this exam. Topics covered in the course include (but are not limited to): review of the diabetes disease processes, nutrition and exercise management of diabetes, self-care strategies and strategies to reduce the risk of complications due to diabetes, management of hypo- and hyperglycemia, appropriate blood glucose monitoring, management of diabetes in special situations such as diabetes in pregnancy, in children, adolescents and the elderly, and management of complex patients.

**Prerequisite:** [PHM101H1](#); [PHM105H1](#); [PHM201H1](#); [PHM202H1](#); [PHM203H1](#); [PHM204H1](#); [PHM205H1](#); [PHM206H1](#); [PHM301H1](#); [PHM302H1](#); [PHM305H1](#)

## PHM386H1 Mental Health and Addictions

**Hours:** 26L

This course is designed to provide students interested in mental health and addictions with a broader knowledge base in the field. It will introduce students to the mental health and addiction system in Canada, the role of stigma in accessing and providing care, the role of psychotherapy and the evidence base for specific modalities, including cognitive behaviour therapy (CBT), interpersonal psychotherapy (IPT), mindfulness therapy, and motivational interviewing. The course will also address issues such as medication adherence and mental health first aid. Students will also be taught how to use validated scales to assess for psychotropic-induced movement disorders. The course will introduce additional mental health disorders/issues, not covered in [PHM302H1](#) including psychotropic medication use in pregnancy and lactation and child and adolescent psychiatry. It will also cover key substance use disorders/issues in more depth than was possible in [PHM302H1](#), including harm reduction principles, cannabis use (recreational and medicinal), recreational drugs and anabolic steroids. The course will be taught using a variety of techniques including didactic lectures, observed patient interviews (video-simulation), case-based learning and interactive group learning.

**Prerequisite:** [PHM302H1](#)

## PHM387H1 Global Health

**Hours:** 16L/10T

Global Health is defined as an area for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide by reducing avoidable diseases, disabilities, and deaths. This elective will introduce students to selected foundational competencies in global health education such as the global burden of disease, social and economic determinants of health, the globalization of health and healthcare, global health governance, human rights and equity. Students will discuss practical and ethical challenges in delivering care in low-resource settings, describe tools and strategies to address the needs of specific vulnerable populations and examine cultural awareness and its importance in caring for diverse vulnerable populations.

## PHM388H1 Self-Care Perspectives and Pharmacotherapy for Minor Ailments

**Hours:** 12L/14T

The management of minor, self-limiting and self-diagnosed ailments such as rashes, cold sores and hay fever is within the scope of practice for pharmacists. This course is designed to build and enhance students' knowledge and skills necessary for contemporary and future pharmacy practice in the area of self-care and minor ailments. This course will cover the management of conditions not covered in other courses and will provide the students' with a comprehensive understanding of non-prescription and prescription therapeutics as they relate to patient self-medication and minor ailments. Emphasis will be placed on the role and responsibility of the pharmacist in accurately assessing and triaging patients, determining the appropriate use of non-prescription and prescription drugs, by determining when to follow-up, refer, and how to document the patient's care. The student will be equipped with the clinical skills, confidence, and tools needed to gather and convey reliable minor ailment information to patients and healthcare providers in an effort to effectively and confidently assess and treat patients. With this knowledge and a structured framework for conducting a minor ailments assessment, students will be able to help patients make appropriate decisions and achieve optimal outcomes from their selected, evidence-based therapy. The main course material will be presented as case-based didactic lectures; student participation in class discussions and interactive classroom activities will be expected. There will be an opportunity for application of the concepts discussed in lectures via simulated patient counselling activities, case-based group learning, and self-directed activities.

**Prerequisite:** [PHM105H1](#); [PHM205H1](#); [PHM206H1](#); [PHM305H1](#)

## **PHM389H1 Research Project**

**Hours:** 78P

This course is designed to introduce to students the philosophy, methodology and performance of research in scientific fields offered by staff members with graduate faculty status at the Leslie Dan Faculty of Pharmacy. The research will involve the review of pertinent scientific literature and generation of new information. Depending upon the project and the supervisor, the research may be conducted in a laboratory at the Faculty, in a hospital, community pharmacy, pharmaceutical company, etc. Fields of study are wide-ranging, e.g., drug delivery, drug metabolism, medicinal chemistry, pharmaceuticals, pharmacokinetics, pharmacoepidemiology, pharmacy administration and pharmacoconomics, clinical pharmacy, pharmacy practice, radiopharmacy, receptor biology, therapeutics, and toxicology. Students are required to obtain prior written consent of the supervisor and course coordinator. Academic credit will not be given for research/work which contributes to the course if remuneration is received for such work.

## **PHM401H1 Institutional Practice Direct Patient Care 1**

All students will be required to complete two 5-week institutional rotations. At least five weeks will be in an adult in-patient service; the other five weeks may be in any area of the institution (including ambulatory clinics and pediatric populations). These rotations will ideally occur within academic health care institutions. The emphasis for all direct patient care rotations is for the student to be immersed in the responsibility of providing pharmaceutical care. Students will participate in, and take responsibility for, direct patient care activities including: patient assessment to identify and prioritize drug therapy problems, development of care plans that address desired patient outcomes, and patient monitoring including physical and laboratory assessment, and where feasible, carry out a follow-up evaluation and appropriate documentation. Students will communicate effectively with patients and care givers to monitor patient parameters, determine and assess target outcomes, and provide education. Students will work closely with members of the health care team in providing collaborative care, engaging in regular communication and documenting their assessment of patients' medication related needs and recommendations to address those needs.

## **PHM402H1 Institutional Practice Direct Patient Care 2**

All students will be required to complete two 5-week institutional rotations. At least five weeks will be in an adult in-patient service; the other five weeks may be in any area of the institution (including ambulatory clinics and pediatric populations). These rotations will ideally occur within academic health care institutions. The emphasis for all direct patient care rotations is for the student to be immersed in the responsibility of providing pharmaceutical care. Students will participate in, and take responsibility for, direct patient care activities including: patient assessment to identify and prioritize drug therapy problems, development of care plans that address desired patient outcomes, and patient monitoring including physical and laboratory assessment, and where feasible, carry out a follow-up evaluation and appropriate documentation. Students will communicate effectively with patients and care givers to monitor patient parameters, determine and assess target outcomes, and provide education. Students will work closely with members of the health care team in providing collaborative care, engaging in regular communication and documenting their assessment of patients' medication related needs and recommendations to address those needs.

## **PHM411H1 Community Practice Direct Patient Care 1**

These Advanced Pharmacy Practice Experience (APPE) rotations occur within academic community pharmacies, with an emphasis on the provision of pharmaceutical care. Students will participate in, and take responsibility for, direct patient care activities including: patient assessment to identify and prioritize drug therapy problems, development of care plans that address desired patient outcomes, patient monitoring including physical and laboratory assessment, and carry out a follow-up evaluation and appropriate documentation. Students will educate and communicate effectively with patients and other health care providers, thereby providing medication therapy management, promoting health and wellness, and ensuring patient safety. The collaboration with other health care disciplines and acting as a member of a patient care team will be vital in providing optimum patient care. Students will manage accurate and effective drug distribution under the supervision of the pharmacist and will participate in expanded scopes of pharmacy practice.

## **PHM414Y1 Community Practice Direct Patient Care**

All students will be required to complete a 10-week rotation in a community pharmacy setting. This type of rotation will ideally be held at an academic community pharmacy, with an emphasis on the provision of pharmaceutical care. Students will participate in, and take responsibility for, direct patient care activities including: patient assessment to identify and prioritize drug therapy problems, development of care plans that address desired patient outcomes, patient monitoring including physical and laboratory assessment, and carry out a follow-up evaluation and appropriate documentation. Students will educate and communicate effectively with patients and other health care providers, thereby providing

medication therapy management, promoting health and wellness, and ensuring patient safety. The collaboration with other health care disciplines and acting as a member of a patient care team will be vital in providing optimum patient care. Students will manage safe and effective drug distribution under the guidance and supervision of the pharmacist as appropriate, and will participate in the full scope of pharmacy practice.

### **PHM424H1 Selective Direct Patient Care**

These rotations will occur in sites serving a variety of health care needs, including, for example, acute care, rehabilitation, pediatric, geriatric, chronic care and specialty populations. Care may be provided in an institution, family health team, community pharmacy, ambulatory clinic or other types of patient care practices, with an emphasis on the provision of pharmaceutical care. Students will participate in, and take responsibility for, direct patient care activities including: patient assessment to identify and prioritize drug therapy problems, development of care plans that address desired patient outcomes, and patient monitoring including physical and laboratory assessment, and where feasible, carry out a follow-up evaluation and appropriate documentation. Students will communicate regularly with patients and care givers to monitor patient parameters, determine and assess target outcomes, and provide education. Students will work closely with members of the health care team in providing collaborative care, engaging in regular communication and documenting their assessment of patients' medication related needs and recommendations to address those needs.

### **PHM451H1 Elective Direct Patient Care 1**

These rotations will occur in sites serving a variety of health care needs, including, for example, acute care, rehabilitation, pediatric, geriatric, chronic care and specialty populations. Care may be provided in an institution, family health team, community pharmacy, ambulatory clinic or other types of patient care practices, with an emphasis on the provision of pharmaceutical care. Students will participate in, and take responsibility for, direct patient care activities including: patient assessment to identify and prioritize drug therapy problems, development of care plans that address desired patient outcomes, and patient monitoring including physical and laboratory assessment, and where feasible, carry out a follow-up evaluation and appropriate documentation. Students will communicate regularly with patients and care givers to monitor patient parameters, determine and assess target outcomes, and provide education. Students will work closely with members of the health care team in providing collaborative care, engaging in regular communication and documenting their assessment of patients' medication related needs and recommendations to address those needs.

### **PHM452H1 Elective Direct Patient Care 2**

These rotations will occur in sites serving a variety of health care needs, including, for example, acute care, rehabilitation, pediatric, geriatric, chronic care and specialty populations. Care may be provided in an institution, family health team, community pharmacy, ambulatory clinic or other types of patient care practices, with an emphasis on the provision of pharmaceutical care. Students will participate in, and take responsibility for, direct patient care activities including: patient assessment to identify and prioritize drug therapy problems, development of care plans that address desired patient outcomes, and patient monitoring including physical and laboratory assessment, and where feasible, carry out a follow-up evaluation and appropriate documentation. Students will communicate regularly with patients and care givers to monitor patient parameters, determine and assess target outcomes, and provide education. Students will work closely with members of the health care team in providing collaborative care, engaging in regular communication and documenting their assessment of patients' medication related needs and recommendations to address those needs.

### **PHM461H1 Elective Non Direct Patient Care 1**

These 5-week elective rotations are designed for the student to gain insight into the structure and functions of various areas of pharmacy practice and/or the health care system, which may require a diversity of knowledge or skills (e.g., pharmacy administration, policy development, drug utilization review, research, etc.). Such rotations enable students to gain awareness of a variety of roles for pharmacists and enhance the student's understanding of the broader scope within which pharmacists work. The rotation will build on the knowledge, skills and behaviours acquired in earlier academic courses and other experiential rotations. The specific focus of the student's activities and rotation-specific learning objectives will be determined through a collaborative discussion between the preceptor and student, taking into account the needs of the site and student interest. Each student may complete a maximum of two 5-week NDPC rotations.

### **PHM462H1 Elective Non Direct Patient Care 2**

These 5-week elective rotations are designed for the student to gain insight into the structure and functions of various areas of pharmacy practice and/or the health care system, which may require a diversity of knowledge or skills (e.g., pharmacy administration, policy development, drug utilization review, research, etc.). Such rotations enable students to

gain awareness of a variety of roles for pharmacists and enhance the student's understanding of the broader scope within which pharmacists work. The rotation will build on the knowledge, skills and behaviours acquired in earlier academic courses and other experiential rotations. The specific focus of the student's activities and rotation-specific learning objectives will be determined through a collaborative discussion between the preceptor and student, taking into account the needs of the site and student interest. Each student may complete a maximum of two 5-week NDPC rotations.

## Course Exemptions

The Faculty will complete an assessment of transfer credit for all candidates admitted to the PharmD program after admission has been granted. This assessment cannot be provided prior to admission. Decisions regarding course exemptions (transfer credit) are normally available during the first week of September in the year in which admission is granted.

As per policy adopted by the Governing Council at the University of Toronto, acceptance of transfer credits will be based on the recognition that, while learning experiences may differ in a variety of ways, their substance may be essentially equivalent in terms of content and rigour.

The PharmD program at the Leslie Dan Faculty of Pharmacy is a professional program uniquely tailored to graduate pharmacy students who will maximize the contributions of pharmacists and generate new solutions to meet the increasingly complex demands of patients and health systems. With this in mind, a select list of courses eligible for exemption is provided below. This information is applicable for the 2021-22 academic year.

Exemption may be considered in the following courses:

- **PHM145H1 Human Histology and Anatomy** (refer to the Exemptions Request Form for samples of acceptable courses). Eligibility for exemption requires course(s) which cover all major topics in Human Anatomy; a significant histology component must also be included. At universities where the material is offered over the span of two terms/semesters (i.e., Anatomy I and II) both courses are required for exemption eligibility. The course(s) must have an emphasis on human anatomy.
- **PHM146H1 Fundamentals of Pharmacology** – equivalent to the University of Toronto courses PCL469H1 + PCL470H1 or the former course PCL470Y1. Some other known equivalencies are listed on the Exemption Request Form.
- **PHM140H1 Molecular Pharmacology** – equivalent to the University of Toronto course PHC301H1 (or former PHC300Y1). Those from a Pharmaceutical Chemistry program at another university may also be considered on a case-by-case basis.
- **PHM141H1 Pharmaceutics** – equivalent to the University of Toronto course PHC230H1 (or former PHC330Y1). Those from a Pharmaceutical Chemistry program at another university may also be considered on a case-by-case basis.
- **PHM240H1 The Science of Pharmacotherapy** – equivalent to the University of Toronto course PHC420H1. Those from a Pharmaceutical Chemistry program at another university may also be considered on a case-by-case basis.
- **PHM340H1 Introductory Toxicology** – equivalent only to the University of Toronto course PCL362H1. Due to the focus of the course and assessment methods used, other Toxicology courses are not eligible for exemption consideration.
- Candidates who have taken a Microbiology course(s) as part of another professional health professions program, may also be eligible for exemption in **PHM242H1 Microbiology of Infectious Diseases**. To ensure a clinical appreciation, Microbiology courses from general science programs will not be considered. These assessments will be made on a case-by-case basis.
- Candidates who have successfully completed another professional health professions program (e.g., Nursing or Medicine), and are licensed in their field may also be eligible for exemption in **PHM230H1 Physical Assessment and Injection Techniques**. These assessments will be made on a case-by-case basis.
- Students with previous attendance at a CCAPP (Canadian Council for Accreditation of Pharmacy Programs) or ACPE (Accreditation Council for Pharmacy Education) accredited program may be considered for exemption in individual

courses not listed above on a case-by-case basis, up to a maximum of 9.0 full-credit equivalents.

The minimum grade requirement for course exemption is 70% (i.e., equivalent to B- at the University of Toronto).

A maximum of 9.0 full-credit equivalent course exemptions may be granted; however, a minimum course load of 4.0 full-credit equivalents must be maintained within each academic year.

Students granted course exemptions will not be eligible for awards based on the overall grade point average.

All requests for course exemption must be submitted in writing by the applicable deadline, unless exemption has been processed automatically by the Faculty upon admission (i.e., unless the course has already been removed from the student's course enrolment in ACORN. For any exemption not processed automatically by the Faculty, a 'Course Exemption Request Form' must be submitted no later than September 24, 2021 for courses beginning in September 2021 or by January 21, 2022 for courses beginning in January 2022.

Further information and the [Exemption Request Form](#) is available on the Faculty's website at <https://www.pharmacy.utoronto.ca/current-students/pharmd/office-registrar/course-exemptions>

## Fees

### Tuition Fees

Each session students are required to pay tuition fees as established by the Governing Council and set out in the Fees Schedule. Tuition fees normally consist of two parts: academic fees and incidental/ancillary fees (i.e., campus fees, student society fees and system access fees). Additional fees may also be assessed to cover such items as instruments, photocopied handouts and laboratory manuals or other laboratory charges.

The information which follows is intended only as a general guideline and may be superseded by that on the ACORN invoice. For further details, consult the Student Accounts website: <https://studentaccount.utoronto.ca/>.

### Method of Payment

Students who are eligible to register may view and print their fees invoice in ACORN ([www.acorn.utoronto.ca](http://www.acorn.utoronto.ca)). Information pertaining to methods of payment can be found on the Student Accounts website (<https://studentaccount.utoronto.ca/>).

### Payment Deadlines (for the Fall/Winter Session)

Fees may be paid in full or a minimum payment may be made as indicated on the ACORN invoice. Specific deadlines are available on the Student Accounts website: <https://studentaccount.utoronto.ca/>.

### Service Charges

All outstanding balances, regardless of the source of payment, are subject to a monthly service charge of 1.5% compounded (19.56% per annum).

### Sanctions for Non-Payment of Fees

Students who have not paid their accounts in full may not receive official statements of results or transcripts and may not re-register at the University until these accounts are paid. At least the minimum payment is due at the commencement of the academic year; the balance is due by the end of the Winter Session.

## 2021-22 Fees for Full-time Students

### Domestic Students:

	Program Fee	Incidental and Ancillary Fees*	Total Fee
Years 1 to 3	\$18,060.00	\$1,677.50	\$19,737.50
Year 4	\$18,060.00	\$2,197.42	\$20,257.42

\* There may be additional Ancillary fees levied for enrolment in specific courses.

### International Students:

	Program Fee	Incidental and Ancillary Fees*	UHIP Fee	Total Fee
Years 1 to 3	\$44,880.00	\$1,677.50	\$756.00	\$47,313.50
Year 4	\$44,880.00	\$2,197.42	\$996.00	\$48,073.42

\* There may be additional Ancillary fees levied for enrolment in specific courses.

## Receipts for Income Tax

Tuition and Education Credit certificates are available at the end of February in ACORN ([www.acorn.utoronto.ca](http://www.acorn.utoronto.ca)) which students may view and print as needed. There is a \$5 charge for replacement certificates prepared by the University.

## Late Registration Fee

Any student who registers after the last date for normal Registration is required to pay (directly to the Faculty) a late registration fee of \$44 plus \$5 for each day of delay.

## Special (Non-Degree) Students

Students taking only a few courses, and not proceeding to a degree, will pay fees on a per course basis.

	Course Fee Per Half-Credit Course	Incidental and Ancillary Fees*
Domestic Fees	\$1,806.00	\$559.38
International Fees	\$4,488.00	\$559.38 + \$756.00 (UHIP)

\* There may be additional Ancillary fees levied for enrolment in specific courses.

## Other University Fees

Additional ancillary fees are levied for enrolment in specific courses as follows:

PHM140H1 Course Notes ..... \$17

PHM241H1 Laboratory Equipment ..... \$6

Experiential Rotations - N95 Mask Fitting ..... \$45

Students are required to pay the following fees, as applicable:

Special Examination ..... \$70

Re-read of Final Examination Paper..... \$36

Supplemental Experiential Rotation ..... Academic fee for course

Building Access Fob ..... \$20

## General Regulations

1. Degree students in the PharmD program are students who are registered in all academic activities (courses) which are offered in each specific academic year of the program. Students who may have exemptions in any given year must be registered in a minimum course load of 4.0 full course equivalents to maintain full-time status.

Students who have extenuating circumstances may request permission to take a reduced course load, which may, in some cases, alter their status to part-time. Such requests will be considered only if the student can demonstrate he or she is unable to attend on a full-time basis.

2. Students must successfully complete all of the academic requirements of one year before proceeding to the next higher year.
3. Normally, it is expected that all students will complete the PharmD program within four years. However, where circumstances warrant, as determined on a case-by-case basis, the maximum duration allowed to complete the PharmD program is 8 years from the initial year of registration.
4. A student who is required to repeat a course or courses must meet the requirements of each professor concerned with respect to attendance, tests and assignments.
5. A student who receives permission to repeat a failed year must repeat the entire work of the year, including all examinations.
6. A student who has withdrawn voluntarily from any year and who is eligible to re-apply to the Faculty shall apply to Council for re-admission. Requests for re-admission must be submitted to the Faculty Registrar by June 1, 2022.

## Grading Practices

Students should be assured that every possible consideration is given toward their success within the framework of the regulations printed hereafter. Students should become thoroughly familiar with these regulations as they may apply to their own situation and should observe especially the procedures for petitioning where the need arises.

The academic results for each year are reviewed by a board of examiners made up of all the course coordinators for the courses in that particular year. The recommendations from each of the boards of examiners are reviewed in turn by a committee on academic standing of the Faculty Council. Taken together, this ensures as equitable a process as possible, given due appreciation by the students themselves of their own strengths and weaknesses.

1. The Leslie Dan Faculty of Pharmacy has established the following audit rules (criteria) for standings within the program:

<b>Standing</b>	<b>Grade Point Average</b>
I Honours	3.50 to 4.00
II Honours	2.70 to 3.49
Pass	1.70 to 2.69
Fail	0.00 to 1.69

To graduate 'with honours' students must obtain:

- a. a cumulative Grade Point Average of 3.50 or higher in the first three years of the Doctor of Pharmacy program; and
- b. a grade of 'Honours' in at least 2.0 of the 3.5 Advanced Pharmacy Practice Experience (APPE) full-course equivalents, and a grade of 'Pass' in the remaining APPE courses.

Only courses for which numeric grades are reported are factored into the calculation of Grade Point Averages.

2. The following is based on the University Assessment and Grading Practices Policy.
- a. Grades are a measure of the performance of a student. They are an indication of the student's command of the content of the components of the academic program. In assessing student performance and translating that assessment into grades, the University's standards and practices should be comparable to those of our academic peers.
  - b. Once an assessment of the performance of the student has been made, the following grade scales will be used in the Doctor of Pharmacy program:
    - i. H (Honours), P (Pass), F (Fail);
    - ii. the numerical scale of marks, consisting of all integers from 0 to 100 (that is, 0, 1, 99, 100).

Percentage	Letter Grade	Grade Point Value *	Grade Definition	
90-100	A+	4.0	Excellent	Strong evidence of original thinking; good organization; capacity to analyze and synthesize; superior grasp of subject matter with sound critical evaluations; evidence of extensive knowledge base.
85-89	A	4.0		
80-84	A-	3.7		
77-79	B+	3.3	Good	Evidence of grasp of subject matter, some evidence of critical capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with literature.
73-76	B	3.0		
70-72	B-	2.7		
67-69	C+	2.3	Adequate	Student who is profiting from his/her university experience; understanding of the subject matter; ability to develop solutions to simple problems in the material.
63-66	C	2.0		
60-62	C-	1.7		
57-59	D+	1.3	Marginal	Some evidence of familiarity with subject matter and some evidence that critical and analytic skills have been developed.
53-56	D	1.0		
50-52	D-	0.7		
0-49	F	0.0	Inadequate	Little evidence of even superficial understanding of subject matter; weakness in critical and analytic skills; with limited or irrelevant use of literature.

\* The grade point **values** above apply to marks earned in individual courses; grade point **averages** are weighted sums of the grade points earned, and thus do not necessarily correspond exactly to the scale above.

3. The distribution of grades in any course shall not be predetermined by any system of quotas that specifies the number or percentage of grades allowable at any grade level.
4. The Board of Examiners will review and approve all final grades. All reported grades should be considered as final and any consultation should be done in advance, especially in courses with multiple instructors. The Board of Examiners is to be advised of any adjustment made and the reason for doing so. This pertains to grades adjusted for the overall class. (Any adjustments made for individual students should be considered on an individual basis at Board of Examiners.) Their recommendation will be forwarded to the Committee on Academic Standing, a Committee of the Faculty Council. Where grades have been adjusted by the Board of Examiners or the Committee on Academic Standing, the students, the instructor, and the Faculty Registrar shall be informed. The Faculty Registrar shall relay this information, upon request, to the student(s) and/or the instructor(s) with a description of the change, the methodology used, and a description of the divisional appeal procedure.
5. Final grades shall not be reported or released to students as official until they are approved by the Committee on Academic Standing. Where final examinations are written mid-year students will be informed of their unofficial grade.
6. No final grades will be posted. However, term grades should be posted within four weeks after an examination, and shall be posted at least three weeks before the final examination. Exemptions must be approved by the Committee on Academic Standing. Secure electronic media (such as Quercus) should be used to post term grades so individuals see only their own grade. Unless no other alternative exists, post term grades in hard copy using truncated student numbers to reduce the ability of students to identify one another's grades. The first four digits of the student number are to be removed, and the grades are to be sorted numerically by 'truncated' student number in either ascending or descending order.
7. Students must obtain an annual grade point average of at least 1.70 (C-) and at least 60% in every course before they can advance to the next higher year. This higher standard overrides those stated in the University Assessment and

Grading Practices Policy.

8. Students who obtain an annual grade point average of at least 1.70 (C-) and a D (50-59) or F (0-49) in a course must write the first offered supplemental examination in that course. The original failed grade will stand and the supplemental examination grade will be reported as either Pass or Fail. In order to advance to the next higher year, students must obtain a grade of Pass on the supplemental examination. The number of supplemental examinations which may be written in any one year by a full-time student cannot exceed 2.0 full course equivalents (fce's). If a student with an Annual GPA of 1.70 or higher fails more than 2.0 fce's he or she may write supplemental examinations in 2.0 fce's of their choosing. The student must repeat the remaining failed course(s) beyond the 2.0 fce's prior to proceeding to the next higher year.

The supplemental will be a cumulative examination comprising the entire assessment component of the course (unless otherwise advised). A weight of 100% is assigned. The format of the supplemental examination will not necessarily be the same as the format of the original examination. If students fail this supplemental examination, they must repeat that course in a subsequent year. Students will not be permitted to take a course and try the regular and supplemental examinations related thereto more than twice. Students may not proceed to a succeeding year until they have fulfilled all of the requirements of the preceding year.

**Exception – Marginal Failures Policy:**

Students who fail a course with a final grade of 57 to 59% will receive one assignable percentage point, up to a maximum of three, for each increment of 0.3 in his or her Annual GPA above 1.70; thus Annual GPAs of 2.00 to 2.29, 2.30 to 2.59 and 2.60 or more will yield 1, 2 and 3 assignable points, respectively. These assignable points may be assigned to individual grades of 57 to 59% in order to achieve 60%. The assignment of points among two or more eligible courses will be at the discretion of the student.

Please note:

- The Marginal Failures Policy is applicable only to students taking a full course load.
  - The Policy normally is applicable only to students for whom it is possible to calculate a final Annual Grade Point Average; they typically are students who have written all final examinations.
  - A student is allowed to take advantage of the process in each year of registration in the program.
  - The Policy will be applied only to courses that are graded on the numeric grade scale.
  - The Policy will be applied to all final grades, including those on supplemental examinations.
  - The original failed grade will stand, and the transcript will be annotated to indicate that the grade is deemed a pass.
9. A student who fails an Early Practice Experience (EPE) rotation will be required to complete supplemental activities and/or additional rotation time, as recommended by the Director, Doctor of Pharmacy Program, in consultation with the Course Coordinator. The supplemental activities and/or rotation should (but not always) be undertaken in the same summer or early fall following the initial rotation. A student who fails a supplemental rotation will be required to successfully complete remedial activities prior to starting a second supplemental EPE rotation. Remedial activities will be tailored to the particular student's challenges. Should a student fail the second supplemental rotation, he or she would be dismissed from the program. A student who fails an EPE rotation is permitted to enroll in the subsequent year's courses while completing supplemental activities and/or additional rotation time. PHM151H1 (EPE-1) must be successfully completed before enrolling in PHM251H1 (EPE-2), and PHM251H1 must be successfully completed prior to undertaking the Advanced Pharmacy Practice Experience (APPE) rotations.
10. Students who fail a course in Year 3:
- a. Students who fail a fall term Year 3 course would normally not be permitted to commence their first Advanced Pharmacy Practice Experience (APPE) rotation until Block 3 of the Fourth year (i.e., until after the student has written the supplemental exam in the failed course and it is confirmed that the student is eligible to proceed to Year 4).
  - b. Final grades for winter term Year 3 courses are not available until late May. Therefore, students who fail a winter term course who have already begun a Block 1 rotation may continue in this rotation, pending Course Coordinator and preceptor approval. However, students who fail a winter term course (who are required to write a supplemental examination) will not be permitted to proceed to a Block 2 rotation since the supplemental exam is held during Block 2
11. a) Progression through Advanced Pharmacy Practice Experience (APPE) Rotations:

If a student fails one rotation and the Course Coordinator or site personnel have not identified 'serious concerns' regarding the student's delivery of patient care (see section on Serious Concerns, below), the student may be

permitted to continue in subsequently scheduled rotations. At the start of the next rotation scheduled (of a similar rotation type), the student will be required to develop a learning contract and a plan, in consultation with the preceptor and Course Coordinator, to address the area(s) of deficiency identified in the failed rotation.

If a student receives a failing grade on two direct patient care rotations, the student is not permitted to continue to subsequent direct patient care rotations until successfully completing academic support activities and two supplemental rotations. [If the student has a non-direct patient care rotation scheduled immediately following the second failed rotation, this rotation may be permitted to continue, at the discretion of the relevant Course Coordinator(s), since the final grade assigned for the second failed rotation will not be approved (through the Faculty's final grade approval process) for two to three weeks. This allowance will prevent sudden disruptions to the non-direct patient care preceptor's schedule/plans.]

b) Serious Concerns:

Students are expected to have and demonstrate the knowledge, skills and attitudes of a senior pharmacy student, ready to take on the responsibilities outlined in the APPE Manual. In the event of "serious concerns", the decision to end the rotation early is made by the Course Coordinator in consultation with the Director of the PharmD program. If this should occur, the student will be removed from the site and the rotation will be graded as 'Fail'.

Serious concerns may include, but are not limited to, the following situations:

- i. Preceptor/site personnel identify concerns that the student may be compromising patient care, e.g., if a student's ability to provide, or assume responsibility for, patient care is deemed well below expectations.
- ii. Preceptor/site personnel identify safety concerns, e.g., the student is putting the patient, the preceptor and/or the site, at risk or harm.
- iii. Serious or repeated breaches of any of the professionalism policies (i.e., Code of Student Conduct, Code of Behaviour on Academic Matters, Standards of Professional Practice Behaviour for all Health Professional Students, Ontario College of Pharmacists Code of Ethics).

Students who fail a rotation due to serious concerns may be required to complete academic support activities prior to completing their supplemental rotation. The reason(s) for the failure, and the extent of learning development needed to meet expectations will determine the type of academic support activities that may be required.

c) Supplemental Rotation:

- i. A student who fails an APPE rotation will normally be given the opportunity to undertake a supplemental rotation. The supplemental rotation will be the same type as the failed rotation, and/or it may be customized to address areas identified in the student's performance during the failed rotation. For students who fail APPE rotation(s), the student must successfully complete academic support activities during a subsequent rotation(s) or prior to a supplemental rotation(s) or concurrent with supplemental rotation(s). (See Academic Support Activities section below for further information.)

If the student fails the supplemental rotation, s/he may be given up to one further opportunity to take another rotation as soon as an appropriate preceptor/site can be confirmed. If the student fails the rotation in this third attempt, s/he will be dismissed from the program.

- ii. A student who fails two Direct Patient Care (DPC) rotations, and subsequently fails one supplemental DPC rotation, must re-enrol in up to five required courses within Years 1 to 3 of the curriculum as determined by a panel of faculty members convened for this purpose. Upon successful completion of these courses, s/he will have the opportunity to complete the APPE program to fulfill a total of 35 weeks of rotations. If the student fails one further rotation, s/he will be dismissed from the program.
- iii. Supplemental rotations will be scheduled as soon as an appropriate site can be confirmed. These rotations are arranged by the Office of Experiential Education, in consultation with the relevant Course Coordinator, and the student. Geographic preference and timeliness of beginning will be considered; however, students should expect some delays and difficulties in satisfying these preferences due to limited preceptor/site availability on relatively short notice.
- iv. The fee to complete a 5-week supplemental rotation is equivalent to the academic fee for a half-credit course and the fee to complete a 10-week supplemental rotation is equivalent to the academic fee for a full-credit course.

## d) Academic Support Activities:

The specific type and duration of academic support activities will be based on the student's learning needs as determined by the Course Coordinator, in consultation with the Director of the PharmD program.

If a student fails one or more APPE rotations, the student must successfully complete academic support activities. These may occur during a subsequent rotation(s) or prior to supplemental rotation(s) or concurrent with supplemental rotation(s).

If a student is removed from a rotation due to serious concerns (see section on Serious Concerns, above), the student must undertake successful academic support activities prior to being placed in supplemental rotations.

## Missed Examinations or Assignments

Students are expected to write all examinations as scheduled and to submit all assignments by the specified deadlines. Only in cases of documented illness or legitimate conflict should a student submit a petition requesting accommodation for a missed examination or assignment.

**Missed examinations** include quizzes, term tests and final examinations which comprise a portion of the total evaluation of a course, where a student is absent for the entire quiz, term test or final examination.

**Missed assignments** include essays, laboratories, case study seminars, workshops and other components which comprise a portion of the total evaluation of a course, where a student fails to hand in or complete the essay, laboratory, case study seminar or other component by the deadline set.

When a student misses an examination or assignment, and wishes to request academic accommodation, it is the student's responsibility to immediately notify the course instructor and Faculty Registrar. The student must file with the Faculty Registrar a petition for consideration with respect to the missed examination or assignment together with the appropriate supporting documentation. A decision on the validity of the reason will be determined in the first instance by the Faculty Registrar and if need be with the Director, Doctor of Pharmacy Program. More complex situations may be referred to the Committee on Academic Standing as required.

The petition and supporting documentation must be filed within **seven** calendar days of the missed examination or assignment in order to be considered. For examinations missed during the regularly scheduled examination periods (December and April), petitions must be submitted by the end of the examination period. Supporting documentation should follow in a timely manner if unavailable by the end of the examination period, with an absolute deadline of the relevant Board of Examiners meeting. Information about this date may be obtained from the Faculty Registrar.

**Students who are given permission to write make-up examinations or to complete missed assignments must pay a 'Special Examination' fee of \$70 per examination. When students receive information regarding the date and time of the make-up examination, they will also receive fee payment instructions and deadline information. Failure to make arrangements for paying this fee by the deadline provided will result in the loss of privilege to write the make-up examination, and a grade of '0' will be assigned for the missed examination.**

If a final examination is missed in December, the make-up examination will be scheduled during Reading Week in February.

If a final examination is missed in April, a make-up examination will normally be held in mid to late July or early August during the supplemental examination period (for First and Second Year students). For Third Year students, if a final examination is missed in April, a make-up examination will be held in late June to early July.

If Third Year students write a make-up examination in late June or early July and fail the course, the student would normally write the supplemental examination (if eligible) during the supplemental examination period in mid to late July or early August.

If a student is eligible to write a make-up exam in a Pharmacy course, a maximum of two opportunities will be offered, unless otherwise specified in the course syllabus. If the make-up exams are also missed, the next opportunity to write such an exam will be during a specific designated exam period.

In accordance with Faculty policy, if the petition is not granted, or if there is no petition, a grade of zero will be assigned. Acceptable valid reasons in the past have included personal illness or illness or death of a close family member. Documentation from a physician or member of clergy, or other appropriate professional person familiar with the circumstances, will be required to substantiate the reason. As noted above, a decision on the validity of the reason will be determined in the first instance by the Faculty Registrar and if needed with the Director, Doctor of Pharmacy Program. More complex situations may be referred to the Committee on Academic Standing for decision.

If the petition is granted the faculty member will be expected to proceed with the appropriate action according to the course policy. Course policy must conform to the University Assessment and Grading Practices Policy.

When any examination or assignment is missed, and where a petition deemed valid by the Faculty is presented, and the sum of all other examinations and evaluations in the course is equal to or greater than 20% of the total grade:

- i. the student will be given a make-up examination (written or oral at the instructor's discretion), or another assignment comparable to the missed evaluation, or
- ii. in a course with a cumulative final examination, the weight of the final examination will be increased to equal the value of the missed examination, plus the original value of the final.

Note that in accordance with the University Assessment and Grading Practices Policy, no one evaluation should have a value of more than 80% of the total grade. Exemptions must be approved by the Committee on Academic Standing prior to the commencement of a course.

If the sum of other examinations and assignments in the course is less than 20% of the total grade the student must be given a make-up examination or other assignment comparable to the value of the missed evaluation.

The examination or assignment option chosen by or available to the instructor must be conveyed to the students by the second lecture period in a course, with the method of evaluation, and filed with the Faculty Registrar.

## Checking of Marks

Students may request to have a final examination re-read for a fee of \$36. (Students should note that failed examinations must be re-read by the professor before the marks are reported.)

Requests for re-reads of final examinations must be submitted, in writing, to the Faculty Registrar as follows:

- For December examinations: by the end of March
- For April examinations: by the end of September
- For other examinations, such as mid-terms, make-ups, etc., requests for re-reads must be made to the professor responsible for the examination within 4 months of the date the examination was written.

A re-reading or recalculation may lead to a lowering, or a raising, or no change of the mark. If the mark is raised, a refund of the fee will be made to the student. For computer-marked exams where the answer sheets have been incorrectly or inadequately completed, a request for a re-read, with payment of the appropriate fee, will be accepted. However, should the student's grade increase and should the problem or error be that of the student, then no refund will be given.

Students who would like to see any examination may do so in the presence of the course coordinator. For final examinations, if a student requests more than one viewing of any examination, a fee of \$10 will be levied for the second and any subsequent viewing. Requests for the second and any subsequent viewing of the same examination must be made in writing and submitted to the Faculty Registrar along with the fee payment. The deadlines for submitting requests to view examinations are the same as the deadlines for submitting requests for re-reads of examinations (see above). The student may view only his/her own examination. Examination papers will not be reproduced for students.

## Rules for Examinations

“Examination” means all term tests and final examinations.

The “Presiding Officer” is normally an instructor responsible for the examination, and has authority for decisions throughout the examination proceedings in accordance with these rules. The Presiding Officer may designate another person(s) to assume responsibilities for the conduct of the examination as required.

### Admittance to Examinations:

1. Candidates should arrive at the place of examination 15 minutes before the time appointed for the commencement of the examination. Following the commencement of the examination, no candidate will be permitted to leave the examination room until one-third of the examination period has elapsed. Similarly, any candidate who arrives after one-third of the examination period has elapsed will not be permitted to write the examination without the consent of the Presiding Officer. In this case, if the Presiding Officer allows the candidate to write the examination, the Presiding Officer will report the circumstances to the Faculty Registrar. Under no circumstance will a candidate be permitted to enter once another candidate has left the examination room. Candidates admitted to the examination room after the examination has begun will not be provided additional time to complete the examination.
2. Without the permission of the Presiding Officer, no person is allowed in the examination room during the examination proceedings except the candidates and those supervising the examination.

### Examination Room:

3. The Presiding Officer has authority to assign seats to candidates.
4. Coats, jackets, hats, knapsacks, bags, purses, pencil cases, eye glass cases, notes and books must be deposited in the area(s) designated by the Presiding Officer and must not be taken to examination desks or tables.

Valuable items may be stored in a clear plastic bag under candidates’ chairs. These items may include but are not limited to cellular phones, smart phones, other electronic/wireless devices, wallets and keys.

Personal computers may also be placed under candidates’ chairs but they must be removed from their bags or carrying cases. The bags or carrying cases must be deposited in the designated area of the examination room.

All electronic/wireless devices must be turned off.

5. When authorized by the Examiner(s), non-programmable calculators may be used. Calculators must be removed from their cases which must be deposited in the designated area of the examination room.
6. A time piece is permitted on the examination desk or table provided the sole function of it is to display the time.
7. Candidates must bring their University of Toronto student card (TCard) to each examination, and place it on their examination desk or table for the duration of the examination.

### Candidates:

8. Once they have entered the examination room, candidates may not leave unescorted for any reason including to use the washroom.
9. Candidates are not permitted to wear baseball caps or other hats (religious head coverings are an exception). Sunglasses are also not permitted. Candidates who choose to wear earplugs while writing examinations will not receive special consideration should they not hear announcements made during examinations. The Presiding Officer and invigilator(s) have the authority to inspect all earplugs.
10. Food brought into the examination room for consumption is limited to a small snack in a transparent bag or container. Wrappers on food products, e.g., granola bars, must be removed. Only drinks in transparent bottles (with labels removed) are permitted.

11. In recording responses, candidates must write in the examination books or other materials provided. They must record responses to be graded in the stipulated areas (e.g., ruled pages of examination books), unless otherwise instructed by the Examiner(s). If applicable, rough work (not to be graded) may be recorded in designated/other areas of the examination materials. For examination books, responses must be numbered to correspond with the questions. On the outside of each book candidates must write their name, student number and subject of the examination, and must number each book, indicating the total number used.
12. Examination books and other materials issued for the examination must not be removed from the examination room except by authority of the Presiding Officer or Examiner(s).
13. Candidates must not communicate with one another in any manner once they have entered the examination room. When conversation is necessary between invigilators and candidates, it must be carried out as discretely as possible.
14. At 10 minutes and five minutes prior to the conclusion of the examination the Presiding Officer will announce the number of minutes remaining.
15. Candidates choosing to leave the examination room prior to the last 10 minutes of the examination period must leave promptly after they have turned in their examination materials.
16. No candidate still present during the last 10 minutes of the examination period will be permitted to leave during that interval, nor are candidates permitted to hand in their examination materials during that interval.
17. At the conclusion of an examination, all writing must cease. The Presiding Officer will seize the papers of candidates who violate this rule and a penalty may be imposed. Candidates must remain seated at the close of the examination until all examination materials are collected and until directed by the Presiding Officer to leave the room. At this time candidates must leave the room and premises promptly. All rules for the conduct of candidates during examinations remain in full force until this announcement is made.

### **Policies:**

18. Candidates are expected to make appropriate judgements about their fitness to attend an examination and must accept the outcome of their choices. Therefore, in the event that:
  - a. a candidate begins but does not complete an examination, the candidate is considered to have been present, and the examination will be graded. A make-up examination will not be permitted.
  - b. a candidate completes an examination, the examination will be graded and, there will be no opportunity to re-write the examination.

If candidates believe that there were extenuating circumstances affecting their performance, a petition with supporting documentation may be submitted to the Registrar's office. Such petitions will be kept on file until the Board of Examiners meets to approve final grades and to discuss candidates who are in academic difficulty.

### **Offences:**

19. It is an academic offence for candidates to access and/or utilize unauthorized materials and/or electronic devices during an examination. Candidates who assist or obtain assistance from other candidates or from any unauthorized source are liable to penalties under the Code of Behaviour on Academic Matters, including the loss of academic credit, suspension or expulsion from the University. Should an alleged academic offence occur the following steps, as applicable, will be taken:
  - a. The Presiding Officer will be informed of the incident.
  - b. The Presiding Officer will immediately collect all evidence and the examination materials to that point, note the time and sign both the evidence and the examination materials, and have these witnessed by one of the invigilators.
  - c. The candidate will then be given new examination materials and allowed to proceed with the examination.
  - d. Should the candidate require the confiscated written paper for reference to continue, this may be done under the direct supervision of the Presiding Officer.

## Unforeseen Circumstances:

20. In the event of unforeseen or unregulated incidents arising before, during or immediately after the examination, the Presiding Officer is authorized to make decisions at his or her discretion, which will, however, be subject to review. The University is not responsible for personal property left in examination rooms.

## Petition Procedures

A petition is a written request for special consideration, because of illness or other circumstances, related to non-compliance with course requirements or impact on academic performance. Petitions are submitted to the Faculty Registrar, in the requisite form, and are considered in confidence by, or on behalf of, the Committee on Academic Standing. Petitions are presented to the Board of Examiners only in the event that a student's satisfactory performance in the program is in jeopardy.

If a petition is submitted by the appropriate deadline, with a clear explanation of the circumstances, and any required documentation is provided, the request will be given prompt consideration. Petition decisions are based on the validity of the request. Approval is not automatic and should not be taken for granted. If students fail to observe deadlines or to organize their academic priorities, or if they have been negligent about their responsibilities, then special consideration will not be warranted. The petition process is not a means to salvage courses and/or the academic record.

A petition should be submitted only when there are circumstances which are not only beyond the student's control, but which also could not reasonably have been anticipated or overcome, and which have affected the student's studies or impacted academic performance.

Relevant and appropriate documentation must be provided at the time the petition is submitted. In the absence of this documentation, the petition is not valid and a grade of '0' will be assigned for the missed evaluation. In the case of illness, a [University of Toronto Verification of Student Illness or Injury](#) form must be provided. Note that the physician's report must establish that the student was examined and diagnosed at the time of the illness, not after the fact. A statement that merely confirms a report of illness made by the student for documentation by the physician will not be sufficient; rather, the medical report must show:

- that the student was examined at the time of illness;
- the degree of incapacitation on academic functioning;
- the duration of the incapacitation.

Petitions for missed mid-term examinations, assignments or other course requirements must be submitted within seven calendar days of the missed examination, assignment or course requirement. For examinations missed during the regularly scheduled examination periods (December and April), petitions must be submitted by the end of the examination period. Supporting documentation should follow in a timely manner if unavailable at the end of the examination period, with an absolute deadline of the relevant Board of Examiners meeting. Information about this date may be obtained from the Faculty Registrar.

A "general" petition with supporting documentation may be submitted if students believe there were extenuating circumstances affecting their academic performance. The deadline to submit "general" petitions is seven calendar days after the release of the final grades.

## Guidelines for Failed/Passed Year and Late Withdrawal

A student who fails a year, and receives permission to repeat the failed year, must repeat the entire work of the year, including all examinations.

- If a student receives less than a 1.70 annual Grade Point Average (GPA), this will constitute a failed year.
- If a student receives less than a 1.70 annual GPA twice, re-admission or further registration will be denied.

- Students who receive an annual GPA of less than 1.70 and who are permitted to write a supplemental examination(s) through the petition or appeal process will be eligible to proceed to the next year of the program provided they pass the supplemental examination(s). The original annual GPA will stand.
- If a 1.70 annual GPA is received, a student will have passed the year only when all courses are successfully completed.
- If a petition and/or appeal relates to a particular course, and special consideration is given, this course may be cleared without a supplemental examination.

It is normally expected that all students will complete the PharmD program within four years. However, where circumstances warrant, as determined on a case-by-case basis, the maximum duration allowed to complete the PharmD program is 8 years from the initial year of registration.

Any student who withdraws after February 18, 2022, or any student who does not withdraw but does not write the annual examinations, will be regarded for the purposes of these regulations as having failed the year.

## Awards and Financial Assistance

### Policy on Student Financial Support

The University of Toronto's Policy on Student Financial Support states that no student offered admission to a program at the University should be unable to enter or complete the program due to a lack of financial means.

The financial support programs of the University of Toronto are designed to guarantee that students have access to the resources necessary to meet their needs as calculated by the Ontario Student Assistance Plan (OSAP) needs assessment. This commitment is based on the assumption that Canadian citizens/Permanent Residents/protected persons (recognized convention refugees) will first access the government aid for which they are eligible.

For students in second-entry programs (such as the Doctor of Pharmacy program), need unmet by OSAP (or equivalent assistance from other provinces) should be met through a mix of grants and institutionally-negotiated loans.

International students must demonstrate that they have sufficient resources to meet their financial needs in order to qualify for a study permit. They are not eligible for the University's guarantee offered to domestic students.

Students who are ineligible for government support for reasons such as disqualifying credit histories are not eligible for the University of Toronto guarantee, but will be assessed on request on a case-by-case basis to determine the level of support that it is appropriate and feasible for the University to provide.

### Government Financial Aid

The Ontario Student Assistance Program (OSAP) provides need based financial assistance to Ontario residents who are Canadian citizens, permanent residents or protected persons (recognized convention refugees). Students in course loads of sixty per cent or greater are considered for both federal and provincial interest-free student loans to assist with educational and living expenses. OSAP applications are available through the OSAP website (<https://www.ontario.ca/page/osap-ontario-student-assistance-program>).

Students from other Canadian provinces/territories should apply through their home province. Links to provincial web sites for applications are available at <https://future.utoronto.ca/finances/financial-aid/osap-and-other-government-aid/>.

It is recommended that returning students apply for government financial aid by May 31 and new students by June 15.

### University of Toronto Work-Study Program

This program provides on-campus part-time employment to students. For information refer to <https://future.utoronto.ca/finances/financial-aid/work-study-program/>.

## Bursary for Students with Disabilities

Non-repayable assistance is available from the federal and provincial governments for OSAP recipients who have special educational expenses as a result of a disability. Information and applications are available from Enrolment Services. For more information refer to <https://future.utoronto.ca/finances/financial-aid/financial-aid-for-students-with-disabilities/>.

## Scholarships, Awards and Bursaries

In accordance with the Policy on Student Awards established in the University of Toronto, June 1986, students should note that the first charge against any undergraduate monetary award shall be outstanding tuition and incidental fees, service charges and other debts due to the University, unless otherwise determined by Enrolment Services in consultation with Student Accounts. In-course scholarships are normally credited to fees upon registration the following September.

Students who carry a lesser course load than those in their year shall not be eligible for merit-based awards, except where they pertain to performance in individual course(s). They are, however, given equal opportunity for bursary funds.

Recipients of merit-based awards will be selected based on the final grade and grade point average information that is available at the time of the relevant Awards Committee meeting. Also, students must be cleared to proceed to the next year of the program to be considered for merit-based awards.

In those cases where the amount of the award is not payable from income earned on an endowed fund, payment will be dependent upon the receipt of the amount of the annual award from the donor.

## Loans

Scotiabank offers the Scotia Professional Student Plan to pharmacy students. This program gives students access to a line of credit at a preferred rate of interest. This is an important source of support for students who have financial need beyond the amounts available through OSAP (or other government aid). Information on the Scotia Professional Student Plan can be found on the Scotiabank website (<https://www.scotiabank.com/ca/en/small-business/business-banking/industries/student-professionals.html>).

## Boundless Promise

Established in 2013, the Boundless Promise Program provides valuable financial assistance to students in need. Drawn from the University of Toronto's operating funds, awards and bursaries established by donors under this program are matched dollar for dollar by the University, doubling both the donation and the impact it has on students in need of financial assistance. The Leslie Dan Faculty of Pharmacy has nine awards under the Boundless Promise Program:

### Leslie Dan Faculty of Pharmacy Class of 7T5 Award

In celebration of the 40th anniversary of their graduation from the Leslie Dan Faculty of Pharmacy, the Class of 7T5 established an award to be presented annually to a full-time undergraduate student on the basis of financial need.

### The Class of 7T8 Award

In celebration of the 35th anniversary of their graduation from the Leslie Dan Faculty of Pharmacy, the Class of 7T8 established an award to be presented annually to a pharmacy student in financial need.

### Leslie Dan Faculty of Pharmacy Class of 9T1 Award

In celebration of the 25th anniversary of their graduation from the Leslie Dan Faculty of Pharmacy, the Class of 9T1 established an award to be presented annually to a full-time undergraduate student on the basis of financial need.

### Erwin Bonivart Bursary

Erwin Bonivart was born and raised in Hungary, where he trained as a pharmacist before coming to Canada. He completed his re-certification at the University of Toronto's Faculty of Pharmacy. He credits U of T with allowing him to pursue a rewarding career doing what he loved. Mr. Bonivart established this bursary, which is awarded to full-time undergraduate students at the Leslie Dan Faculty of Pharmacy on the basis of financial need.

### Roger G. Daher Bursary

Roger G. Daher is a 1989 graduate of the Bachelor of Science in Pharmacy program at the University of Toronto. He has

worked in the pharmacy industry for 32 years and has been a licensed pharmacist for 27+ years. Currently he is the owner/partner of eleven pharmacies in Ontario. Mr. Daher established this bursary which is to be given to full-time undergraduate students at the Leslie Dan Faculty of Pharmacy on the basis of financial need.

#### **Elliott Family Award**

Christine Elliott graduated from the Faculty of Pharmacy in 1991. She has worked in community pharmacy, the pharmaceutical industry and as a drug information pharmacist. She is an advocate for lifelong learning. Ms. Elliott established this award, which is given to full-time undergraduate students at the Leslie Dan Faculty of Pharmacy on the basis of financial need.

#### **Wayne and Lois Hindmarsh Bursary**

Dr. Wayne Hindmarsh was Dean of the Leslie Dan Faculty of Pharmacy from 1998 to 2009. Dr. Hindmarsh and his wife Lois established this bursary to support a pharmacy student in financial need.

#### **Kim Lien and Nghia Truong Bursary**

Kim Lien and Dr. Nghia Truong have established a bursary which will be awarded to full-time undergraduate students at the Leslie Dan Faculty of Pharmacy on the basis of financial need.

#### **Truongs Family Bursary**

The Truong family (Kim Lien and Nghia, both special students at the Faculty of Pharmacy in the 1970's, and their daughters Kalena [Class of 1T1] and Alyssa [Class of 1T4]) established this bursary to be awarded to a full-time undergraduate student at the Leslie Dan Faculty of Pharmacy, on the basis of financial need.

## **Faculty Awards**

### **Admission Awards**

#### **Chinese Canadian Pharmacists' Association (Ontario) Entrance Scholarship**

The Chinese Canadian Pharmacists' Association (Ontario) offer a scholarship to a student who is accepted into the entry-to-practice PharmD program with high academic achievement who has not received another entrance scholarship.

#### **Dr. Richard Owen Davies Memorial Award**

Dr. Richard Owen Davies was born in Brantford, Ontario, and was the first in his family to attend university. He earned a Bachelor of Science in Pharmacy, Masters in Pharmacology, a Medical Degree and a Doctorate in Pharmacology, all from the University of Toronto. After graduation, he completed a residency in Winnipeg, Manitoba, and then entered the pharmaceutical industry. He had a successful career spanning Canada and the United States, working in several major pharmaceutical companies, bringing many life changing and saving medicines to people in need. As a result of his hard work at the University of Toronto and in industry, Dr. Davies was able to make a difference in the world in which we live today. The Dr. Richard Owen Davies Memorial Award was established to honour his work. It will be awarded to a student entering the pharmacy undergraduate program who self-identifies as the first in their immediate family to attend university. In the event that multiple students are eligible to receive this award, the student with the highest admission index will be the successful recipient. The student may also qualify for financial assistance. The award will not be given if a suitable candidate is not identified.

#### **Dean's Admission Scholarships**

The Leslie Dan Faculty of Pharmacy established these scholarships to be awarded to up to ten candidates for admission to the undergraduate program with the highest admission index scores. The scholarships will be renewed in Years 2, 3 and 4, provided the recipients maintain full-time status in the program, and an Annual Grade Point Average of at least 3.50 is achieved (with a passing grades in all courses).

#### **Federation of Chinese Canadian Professionals (Ontario) Education Foundation Entrance Scholarship**

This scholarship, established by the Federation of Chinese Canadian Professionals (Ontario) Education Foundation, is awarded to a student who obtains the highest admission index and has not won an admission award of greater value.

#### **Leslie Dan Faculty of Pharmacy, Faculty and Staff Undergraduate Award for Black and Indigenous Students**

Faculty and staff of the Leslie Dan Faculty of Pharmacy created this award to encourage more Black and Indigenous students to pursue a pharmacy education at the University of Toronto. It will be given to one or more self-identified Black or Indigenous student(s) entering Year 1 of the undergraduate pharmacy program who have the highest admission index. The award will not be given if a suitable candidate is not identified.

**Merck Canada Entrance Scholarship**

This scholarship is awarded to the student entering the undergraduate program who obtains the highest admission index and has not won an entrance award of greater value.

**Nathan Moses Entrance Scholarship**

Nathan Moses was a 1946 graduate of the Faculty of Pharmacy and owned a pharmacy in Forest Hill Village in Toronto. This scholarship will be awarded to the student entering the undergraduate program who obtains the highest admission index and has not won an award of greater value.

**Pharmacy Admission Scholarships**

The Governing Council of the University of Toronto has established admission scholarships in the Faculty of Pharmacy to be awarded on the basis of the admission index.

**Arthur A. Shapiro Memorial Award**

The Estate of Arthur A. Shapiro, Class of 3T7, has provided this scholarship to be awarded to the student who obtains the highest admission index and has not won an award of greater value.

**Ian Stewart/Shoppers Drug Mart Award for Black Pharmacy Students**

Ian Stewart graduated from the Faculty of Pharmacy in 1988 with a Bachelor of Science in Pharmacy degree. From there, he embarked on a career in retail pharmacy, first as a Pharmacist/Pharmacy Manager and then as a Pharmacist/Franchise Owner for Shoppers Drug Mart. Active in the profession and the community, Ian served on the Board of Directors of numerous industry associations, organizations and not-for-profits. Shoppers Drug Mart chose to fund this award in conjunction with Mr. Stewart to recognize his exemplary support of black pharmacy students and to ensure more black students can pursue a career in pharmacy. The Ian Stewart/Shoppers Drug Mart Award for Black Pharmacy Students is awarded to one or more self-identified, deserving black student(s) entering Year 1 of the undergraduate program at the Leslie Dan Faculty of Pharmacy, based on financial need and demonstrated community/volunteer involvement prior to entering the Faculty.

**Colonel F.A. Tilston Admission Scholarship**

The late Colonel F.A. Tilston established admission scholarships for students entering First Year Pharmacy, with the highest admission index, and who have not won an admission award of greater value. One of these scholarships will be awarded to an Indigenous student. Colonel Tilston was a 1929 Pharmacy graduate and retired president and chief executive officer of Sterling Drug Ltd. He was the first University of Toronto graduate (and the 9th Canadian) to receive the Victoria Cross, the highest Commonwealth award of wartime honour in World War II.

**William James Toth Pharmacy Memorial Scholarship**

The William James Toth Pharmacy Memorial Scholarship is awarded to a student from Brant County entering First year in the Faculty of Pharmacy. If there are no candidates, the award will be forfeited until the following year.

**Undergraduate Pharmacy Society Leadership Entrance Scholarship**

The Undergraduate Pharmacy Society (UPS) is the student governing council which supports the academic, social, athletic and professional activities of the undergraduate students at the Leslie Dan Faculty of Pharmacy. This scholarship was established by the members of the 2016-17 UPS Council to support and encourage leadership in the profession. It is awarded to a student entering Year 1 of the PharmD program based on demonstrated leadership and potential to contribute to the Faculty and to the Pharmacy profession. The recipient must not have already received an entrance scholarship, and this scholarship will not be awarded if a suitable recipient is not identified.

**War Memorial Scholarship**

A scholarship from the graduates of the Ontario College of Pharmacy is awarded to the student who is accepted into the program with the highest admission index.

**David White Entrance Scholarship**

David White was the Assistant Dean, Advancement and Alumni Relations, at the Leslie Dan Faculty of Pharmacy from 2007 to 2017. He established this scholarship to recognize the student entering the undergraduate program who obtains the highest admission index and has not received an entrance award of greater value.

## General Awards

### Artemis Diamantouros Memorial Award

This award was established in loving memory of Dr. Artemis Diamantouros by her family, friends and colleagues. Over an academic and professional career that spanned more than 20 years at the University of Toronto and Sunnybrook Health Sciences Centre, Artemis provided leadership and mentoring to countless students and pharmacists through her teaching, preceptorship, and participation on professional committees. Her research in continuing professional education, pharmacy practice, knowledge translation, and her volunteership in various professional organizations fostered expanded pharmacy practice, improved patient care, and intraprofessional collaboration. In addition to her professional achievements, Artemis' greatest attributes were her ability to motivate and inspire colleagues and mentor students to go above and beyond the call of duty. Her compassion and personal warmth towards her patients, co-workers, and students made her someone to aspire to be professionally and personally. The Artemis Diamantouros Memorial Award will be given to a student in Year 2, 3 or 4 of the undergraduate program who demonstrates outstanding leadership contributions to the pharmacy profession and inspires others to do the same. The recipient must have achieved a minimum academic standing of Second Class Honours (if enrolled in Years 2 or 3) or at least a Pass standing in all courses (if enrolled in Year 4). The recipient must also be eligible for financial assistance. No student may be the recipient of this award more than once. The award will not be given if a suitable candidate is not identified.

### Paul G. Halligan Faculty of Pharmacy Spirit Award

Classmates (8T5) and friends of the late Paul G. Halligan have established this award in his honour. The award will be presented to a deserving undergraduate student who holds an official student governing position, played four or more intramural sports, exemplifies high leadership qualities and contributes greatly to the spirit of the student body at the Faculty of Pharmacy.

### K. Wayne Hindmarsh Award of Excellence

This award, established in honour of K. Wayne Hindmarsh, Dean of the Leslie Dan Faculty of Pharmacy from 1998 to 2009, is awarded to a student who shows outstanding achievement in the areas in which Dr. Hindmarsh excelled – leadership, academics and the advancement of the pharmacy profession. The recipient must be enrolled in the first, second or third year of the undergraduate program, must have a Grade Point Average of 3.50 or higher in the year of application, and must be eligible for financial assistance under the OTSS guidelines. No student may be the recipient of this award more than once. The award will not be given if a suitable candidate is not identified.

### Jennifer Houwer (Kadwell) and Holly Pietowski (MacDonald) Memorial Award

Jennifer Houwer (Kadwell) received the degree of BScPhm from the University of Toronto in 2011. She suffered from Hodgkin's lymphoma throughout most of her studies at the Leslie Dan Faculty of Pharmacy and succumbed to the disease in 2012. Holly Pietowski (MacDonald) entered the BScPhm program in 2007. She was diagnosed with acute lymphoblastic leukemia in 2010 and passed away in 2011 before completing the program. The family and friends of Jennifer Houwer (Kadwell) and Holly Pietowski (MacDonald) established an award in their memory. It is given to a student in the undergraduate program who demonstrates exceptional vision and outstanding leadership through volunteer service to the community (outside of the Faculty, but within the University), has played on at least one intramural sports team and has a cumulative GPA of at least 2.70. Students are only eligible to receive this award once.

### Khalsa Humanitarian Award

Manjit Hansra received the degree of BScPhm from the Leslie Dan Faculty of Pharmacy in 2003. He volunteered in the community during his time as a student at the Faculty and while working abroad as a community pharmacist. He also instilled the concept of SEVA by coordinating team-building volunteer activities with his management team. He has established this award to promote the concept of SEVA, or 'selfless service': a giving back to the community and serving those who need a helping hand, which allows us to uplift society as a whole and to see the entire human race as one. The Khalsa Humanitarian Award will be given to a student, in any year of the undergraduate program, who has demonstrated community involvement and volunteer service. No student may receive the award more than once. The award will not be given if a suitable candidate is not identified.

### Horace David McCord Memorial Scholarship

This scholarship was established by the late Horace David McCord to be awarded to students who originally were educated in the Ottawa Valley, and who have high academic standing in the entry-to- practice PharmD program.

### My Future Forward Award

The My Future Forward Award was established by Doris Nessim, who completed her undergraduate studies at the Leslie Dan Faculty of Pharmacy, University of Toronto, and her post-graduate studies at the Leslie Dan Faculty of Pharmacy and the Ontario Institute for Studies in Education (OISE). She established this award to "motivate students to stay focused in

striving forward to achieve their future role as a pharmacist practitioner. It also provides an opportunity to give back." This award is also a tribute to Ms. Nessim's parents, whom she wishes to recognize for their outstanding guidance and mentorship in support of her aspirations in Pharmacy practice. By following their example, and with their support, Ms. Nessim has provided leadership, education and research in areas related to the role of pharmacists within the health-care team and the broader health-care system. She has worked collaboratively with intra- and interprofessional colleagues to improve transitions in patient care and home care to deploy digital technologies for the benefit of patients and the betterment of safe medication practices across the continuum of health care. Through mentorship, volunteering with professional and charitable organizations and the exchange of knowledge, she has strived to improve access to care and services, especially for vulnerable populations. The My Future Forward Award will be given to one or more students in Year 2, 3 or 4 of the undergraduate program. The recipient will be a student who demonstrates a strong commitment to the health and welfare of patients through pharmacy practice, and an ability to collaborate and inspire others through their leadership contributions and community engagement work, especially in the areas of care for the elderly, underprivileged or most vulnerable. No student may receive this award more than once. The award will not be given if a suitable candidate is not identified.

### **Rexall ICARE Award for Black and Indigenous Students**

With a heritage dating back over a century, Rexall is a leading drugstore operator with a dynamic history of innovation and growth, dedicated to caring for Canadians' health ... one person at a time. Their commitment to helping Canadian families and communities guides them as they look to the future to increase access to convenient, quality healthcare and products. Rexall is equally committed to supporting students to realize their full potential. As such, they established the Rexall ICARE Award for Black and Indigenous Students. It will be awarded to one self-identified Black or Indigenous undergraduate student in Year 2, 3 or 4 on the basis of financial need and how the student exemplifies Rexall's ICARE values of Integrity, Customer-First, Accountability, Respect and Excellence. The award will not be given if a suitable candidate is not identified.

### **Leo Weksler Award**

Leo Weksler graduated from the Faculty of Pharmacy at the University of Toronto in 1956. As the son of hard-working immigrants, of very modest means, Leo was the first in his family to go to University. He was always grateful to the profession of pharmacy as it gave him the means to assist his family, even while he was a student working in drug stores. The Leo Weksler Award will be presented to a deserving undergraduate student in Year 1, 2 or 3 at the Leslie Dan Faculty of Pharmacy who holds a position on the Executive Team of the Imagine Clinic, has participated in one additional pharmacy club in the same academic year, and has achieved a minimum of Second Class Honours. Students are only eligible to receive this award once.

## **First Year Awards**

### **Alumni Undergraduate Award**

The Pharmacy Alumni Association has established an award for a student entering Second Year who has contributed to student activities in First Year. Candidates are recommended by the Undergraduate Pharmacy Society. Academic performance must be at least Second Class Honours.

### **E.E. Binder Memorial Prize**

This prize, presented by Mrs. E.E. Binder, is awarded to the student obtaining the highest standing (First Class Honours) in Molecular Pharmacology (PHM140H1), and who has achieved at least Second Class Honours in the annual examinations of First Year.

### **Dr. Heather Boon Scholarship**

Heather Boon is a graduate (9T1) of the BScPhm program at the Faculty of Pharmacy, University of Toronto; she completed her PhD at the University of Toronto in 1996. After completing a post-doctoral fellowship at Western University, she returned to U of T, first working in the Faculty of Medicine from 1998 to 2000. In 2001, she returned to the Leslie Dan Faculty of Pharmacy where her primary research interests are the safety and efficacy of natural health products as well as complementary/alternative medicine regulation and policy issues. She is a Full Professor at the Faculty and has served as the Associate Dean for Graduate Education. She was the interim Dean of the Faculty from 2013 to 2014 and Dean from 2014 to 2018. The Dr. Heather Boon Scholarship is awarded to the student with the highest overall standing in Health Systems (PHM110H1) and Social and Behavioural Health (PHM114H1).

### **Joseph Charendoff Scholarship**

A bequest by the late Joseph Charendoff, a graduate of the Class of 5T3, has provided for a scholarship to be awarded to the First year student who obtains the highest Annual Grade Point Average and a final grade of Honours in Medication Therapy Management 1 (PHM105H1).

**C. Leroy Coultis Scholarship**

The C. Leroy Coultis Scholarship was given by the late Mr. C. Leroy Coultis to be awarded to the student who attains the highest mark in First Class Honours in the subject Pharmaceutics (PHM141H1) and who obtains at least Second Class Honours standing in the First Year.

**Lou Grainer Award**

On the occasion of Mr. Grainer's 75th birthday and in recognition of his contribution to the profession of pharmacy, an award has been established for a student who obtains the highest standing at the annual examinations of the First Year, and who has not won an award of greater value.

**Wilfred Isaacson Scholarship**

In recognition of Mr. Wilfred Isaacson's contribution to the profession of pharmacy, his family and friends have established a scholarship to be awarded to a student who obtains the highest standing at the annual examinations of the First Year, and who has not won an award of greater value.

**William Stanley Meeker Memorial Book Prize**

In memory of Mr. William Stanley Meeker, who practised community pharmacy during his lifetime, a capital donation was made by Mrs. Edith Meeker, Professor Josephine P. Meeker, and others. The annual income, for the purchase of textbooks, will be awarded to the student who attains the highest mark in First Class Honours in the subject Pharmaceutics and who obtains at least Second Class Honours standing in First Year.

**Ostrom and Pauley Scholarship**

The Estate of Marjorie Grace Pauley has provided for a scholarship to be awarded to a student who obtains the highest standing in First Class Honours, and who has won no award of greater value.

**George I. Puro Memorial Award**

The George I. Puro Memorial Award is awarded to the student who obtains at least Second Class Honours at the annual examinations of the First Year, and who obtains the highest total grades in Health Systems (PHM110H1) and Social and Behavioural Health (PHM114H1).

**Joseph Senelnick Rho Pi Phi Memorial Prize**

Nu Chapter of the Rho Pi Phi Fraternity established the Joseph Senelnick Rho Pi Phi Memorial Prize to be awarded to the student who obtains the highest total grades in the pharmacy subjects Health Systems (PHM110H1), Social and Behavioural Health (PHM114H1), and Pharmaceutics (PHM141H1).

**Kenny Tan Award**

Kenny Tan graduated from the Faculty of Pharmacy in 1998. He is a community pharmacist who prides himself on being an educator and a mentor. He has been an ongoing contributing member of the Faculty in the capacity of a mentor to First year pharmacy students, preceptor to SPEP and APPE students as well as a lecturer in both Experiential and Medication Therapy Management courses. As an undergraduate student at the Faculty, Kenny held positions on the Executive Committee of the Undergraduate Pharmacy Society for three years. He was the recipient of the Walton Award after his Third year and received a Gordon Cressy Student Leadership Award in Fourth year. Kenny has always believed that it is important to be a well-rounded individual and that students maintain a good balance in their social, athletic and academic life. Kenny established this award to reflect this. The Kenny Tan Award will be given annually to a student in Year 1 of the undergraduate pharmacy program who has a minimum academic standing of Second Class Honours and has accumulated the most UPS points for their cohort in the year of the award.

**Undergraduate Pharmacy Society Award**

This award, established by the Undergraduate Pharmacy Society, is given to a Year 1 student who has made a significant contribution to the undergraduate student life over the past year and who has not held a position on UPS or Class Council in that year. Nominations are made by each class, are approved by UPS, and are forwarded to the Faculty's Awards Committee for final selection.

**Flora M. Ward Scholarship**

This award has been established through the generosity of Flora M. Ward, a long-time staff member originally with the Ontario College of Pharmacy and subsequently with the Faculty. Ms. Ward served as Faculty Secretary from 1959 to 1973. The scholarship is awarded to a First Year student in recognition of academic excellence who has not received an award of greater value. The Annual Grade Point Average will be used to determine the recipient.

## Second Year Awards

### Alumni Undergraduate Award

The Pharmacy Alumni Association has established an award for a student entering Third Year who has contributed to student activities in Second Year. Candidates are recommended by the Undergraduate Pharmacy Society. Academic performance must be at least Second Class Honours.

### Corbett Scholarship

The late H. Milton Corbett established the Corbett Scholarship in the amount of the income on \$5,000. It is to be awarded to a student who obtains First Class Honours standing in the annual examinations of Second Year and who has not received an award of greater value.

### Dina Dichek Pharmacotherapy Scholarship

Dina Dichek is a graduate of the University of Toronto, Faculty of Pharmacy (7T0). She has practiced pharmacy in many different roles: in hospitals, in community settings, for national pharmacy organizations, for the U of T, in government and as a consultant. She has mentored, precepted and/or supervised numerous Pharmacy students, interns and new graduates. The Dina Dichek Pharmacotherapy Scholarship is awarded to the Year 2 student with the highest overall standing in Pharmacotherapy 2: Self-Care Perspectives and Pharmacotherapy (PHM201H1), Pharmacotherapy 3: Endocrinology, Nephrology and Urology (PHM202H1), Pharmacotherapy 4: Infectious Diseases (PHM203H1), and Pharmacotherapy 5: Cardiovascular Diseases (PHM204H1). The recipient must also achieve First Class Honours in Year 2 of the Doctor of Pharmacy Program.

### 5T4 Award

The Pharmacy Class of 5T4 has established this award to be given to a student entering the Third Year in Pharmacy who has at least a B academic standing which has been most improved over the First Year record.

### Erast R. Huculak Award for Academic Excellence and Community Service

Erast Huculak was born in Ukraine in 1930. He immigrated to Canada in 1948 and despite linguistic and other challenges, completed his degree in Pharmacy at the University of British Columbia. Moving to Ontario, he founded and presided over Medical Pharmacies, a retail pharmacy chain that soon became one of the largest providers of pharmaceuticals to Long Term Care in Canada. His professional success enabled him to engage in many humanitarian and philanthropic endeavors for which he was recognized with numerous awards, including three Honourary Doctorate degrees and in 2006, the Order of Canada. While never forgetting and always helping his native Ukraine, Erast frequently expressed his appreciation for the opportunities Canada provided him and vigorously advocated for giving back to community and country. The Erast R. Huculak Award for Academic Excellence and Community Service is presented to a student registered in Year 2 of the PharmD program who has achieved academic excellence with an annual Grade Point Average of at least 3.30; and has demonstrated community involvement and volunteer experience outside of the Leslie Dan Faculty of Pharmacy. The award will not be given if a suitable candidate is not identified.

### Hunter Family Award

Michael Hunter is a graduate of the Faculty of Pharmacy and currently is the owner of Hunter's Pharmacy Ltd. in Windsor, Ontario. He established an award which is to be given to the student in Year 2 of the undergraduate program who achieves the highest final grade in PHM241H1 Topics in Pharmaceutical Quality and Clinical Laboratory Medicine (i.e., a course that requires demonstration of compounding skills), and has not won an award of greater value.

### Kassel Family Scholarship

William Kassel and friends and family of the late Mr. Max Kassel have established the Kassel Family Scholarship in his honour. The scholarship is to be awarded to the student who obtains the highest standing in First Class Honours in the annual examinations of the Second year and who has not received an award of greater value.

### Bill Parish Memorial Award

The Class of 1957 has established an award in tribute to the spirit that was Bill Parish, a member of the class. The award shall be given to a Second Year student who has been recognized as having contributed significantly to the professional, athletic and student life during that year. The point system of the Undergraduate Pharmacy Society, which embraces the above principles, will be used in selecting the winner.

### Procter & Gamble – J. Marvin Shaw Scholarship

Procter & Gamble Inc. provides a scholarship to be awarded to the student who stands first in First Class Honours at the annual examinations of the Second Year.

**Jack H. Stein Award**

The family of Jack H. Stein, Class of 5T2, has established this award in his honour. The award will be presented to a student, preferably from Essex County, who achieves at least Second Class Honours in PHM215H1 Management: Skills, Communication and Collaboration, and who has demonstrated participation in extra-curricular activities.

**Kenny Tan Award**

Kenny Tan graduated from the Faculty of Pharmacy in 1998. He is a community pharmacist who prides himself on being an educator and a mentor. He has been an ongoing contributing member of the Faculty in the capacity of a mentor to First year pharmacy students, preceptor to SPEP and APPE students as well as a lecturer in both Experiential and Medication Therapy Management courses. As an undergraduate student at the Faculty, Kenny held positions on the Executive Committee of the Undergraduate Pharmacy Society for three years. He was the recipient of the Walton Award after his Third year and received a Gordon Cressy Student Leadership Award in Fourth year. Kenny has always believed that it is important to be a well-rounded individual and that students maintain a good balance in their social, athletic and academic life. Kenny established this award to reflect this. The Kenny Tan Award will be given annually to a student in Year 2 of the undergraduate pharmacy program who has a minimum academic standing of Second Class Honours and has accumulated the most UPS points for their cohort in the year of the award.

**Fred W. Teare Memorial Scholarship**

Family and friends of the late Fred W. Teare established this scholarship in his honour and memory. Dr. Teare was a member of the professorial staff of the Faculty from 1957 to his retirement in 1990. He taught in the area of instrumental analysis, analytical and clinical toxicology, and radiopharmacy. He was an active member of many committees within the Faculty, and professional organizations. This scholarship is awarded to the student who obtains the highest grade in PHM241H1 Topics in Pharmaceutical Quality and Clinical Laboratory Medicine.

**Undergraduate Pharmacy Society Award**

This award, established by the Undergraduate Pharmacy Society, is given to a Year 2 student who has made a significant contribution to the undergraduate student life over the past year and who has not held a position on UPS or Class Council in that year. Nominations are made by each class, are approved by UPS, and are forwarded to the Faculty's Awards Committee for final selection.

**Third Year Awards****Alumni Undergraduate Award**

The Pharmacy Alumni Association has established an award for a student entering Fourth Year who has contributed to student activities in Third Year. Candidates are recommended by the Undergraduate Pharmacy Society. Academic performance must be at least Second Class Honours.

**Jack Austin Retirement Scholarship**

To honour the retirement of its founder and President, Jack Austin Drugs Limited has established a scholarship to be awarded to the Third Year student who obtains over 80% in PHM370H1 Community Pharmacy Management, and has not received an award of greater value.

**Susannah Biggs Scholarship**

This scholarship was established through a bequest from Susannah Biggs, who graduated from the Faculty of Pharmacy with a Bachelor of Science in Pharmacy degree in 1964. Throughout her 39-year career, she was a practicing pharmacist in retail pharmacy serving her community both locally and throughout Metropolitan Toronto. The Susannah Biggs Scholarship will be awarded to one student entering Year 4 of the undergraduate pharmacy program who has achieved a minimum Annual GPA of 3.30 in each of the first three years of the program, and who has achieved Honours standing in at least three of the four Medication Therapy Management courses. The recipient must also be eligible for financial assistance.

**M. Carolyn Braiden Scholarship**

Miss M. Carolyn Braiden has established the M. Carolyn Braiden Scholarship in the amount of the income on \$3,000. The scholarship is to be awarded to a student who obtains First Class Honours in the examinations of the Third Year and who has not won an award of equal or greater value.

**Harold G. Browne Prize**

The Harold G. Browne Prize is awarded to the student who obtains the highest standing in PHM370H1 Community Pharmacy Management, achieves an Annual Grade Point Average of 2.70 or higher, and has not won an award of greater value.

**Ward Charlebois Scholarship**

The late Ward Charlebois graduated from the University of Toronto, Faculty of Pharmacy in 1988. He was the owner of an independent pharmacy in Angus, Ontario for several years prior to his death from cancer in August 2010. Drug Trading Company Limited established this award in his memory. The Ward Charlebois Scholarship is awarded to a student entering Year 4 of the undergraduate program who has achieved Second Class Honours, was born and educated in a small town in Ontario (population of less than 20,000), and who has experience working in an Independent Pharmacy.

**John Connelly Memorial Scholarship**

Friends and family established this scholarship to honour the life of John Connelly who was a good student, athlete and friend to his classmates. It will be awarded to a Third Year student who has achieved at least Second Class Honours, has participated in one or more intramural sports, and has not received an award of greater value.

**Tony Crncich and Mahlon Dyer Scholarship**

This scholarship, made possible through an endowment from Big V Pharmacies, has been established in honour of Tony Crncich and Mahlon Dyer, the original founding members of Big V Pharmacies. Mr. Crncich served as President for more than 20 years and Mr. Dyer was Vice President of Marketing for 30 years. This scholarship will be awarded to the Third Year student who achieves the highest total grades in PHM301H1 Pharmacotherapy 6: Hematology, Oncology and Immunotherapies and PHM302H1 Pharmacotherapy 7: Neuropsychiatry, and Honours standing in PHM305H1 Medication Therapy Management 4.

**CSHP (Ontario Branch) Award**

The CSHP (Ontario Branch) has established this award to be given to the student who obtains the second highest grade in PHM371H1 Institutional Pharmacy Practice Management. This award is intended to raise the awareness of Pharmacy students of hospital pharmacy through familiarization with the goals, activities and services of CSHP, and the Ontario Branch in particular. The recipient will receive a framed certificate and membership in CSHP for one year; if the recipient pursues a hospital pharmacy residency, the membership will be extended to three years.

**Drug Trading Company Limited Awards**

The Drug Trading Company Limited, Toronto, provides two awards of \$250 each to two students who obtain at least Second Class Honours at the examinations of the Third Year.

**8T0 Award**

The Class of 8T0 has established an award which shall be given to a Third Year student who has made the most significant contribution to the professional, athletic and social lives of her/his fellow classmates. The student shall be nominated by the class representatives at the conclusion of Third Year and subject to the student's successful completion of the academic year.

**Horace J. Fuller Memorial Award**

Family, friends and associates of Horace J. Fuller established this award to honour the memory of Mr. Fuller, the first professor of pharmacy administration at the University of Toronto. This award is presented to a Third Year student in recognition of his/her performance in the administrative, historical and social (behavioural) aspects of the Pharmacy program.

**John H.H. Jury Scholarship**

A bequest by the late Mr. J.H.H. Jury, Bowmanville, was made to establish a scholarship in the amount of the income on \$2,000. The award is made to a student of the Third Year on the basis of academic standing in the annual examinations.

**Theodore James Kanas Memorial Scholarship**

Mr. and Mrs. George Kanas have established this scholarship in loving memory of their son, Theodore James Kanas, who graduated from the Faculty of Pharmacy in 1973. The scholarship is to be awarded to the student who achieves the highest standing in the annual examinations of Third Year and who has won no other award. The recipient must continue his/her studies in Fourth Year.

**D.R. Kennedy Memorial Award**

This award was established by friends and colleagues in memory of Professor David R. Kennedy, a faculty member from 1955 until his retirement in 1988. He taught in the area of pharmaceuticals, jurisprudence and dispensing. He passed away in January 1994. In keeping with Professor Kennedy's area of interest, this award will be given to a Third Year student who demonstrates academic excellence in the Medication Therapy Management courses (PHM105H1, PHM205H1, PHM206H1 and PHM305H1).

**Frank Kwiecien Memorial Scholarship**

Frank Kwiecien graduated from the Faculty of Pharmacy in 1980 with a Bachelor of Science in Pharmacy degree. From there he embarked on a long and illustrious career in retail pharmacy, ultimately serving as Vice President, Pharmacy, for Loblaw Companies Limited. Active in the profession and the community, Mr. Kwiecien served on the Board of Directors of numerous industry associations, organizations and not-for-profits. Frank passed away on September 12, 2011, after a brave battle with brain cancer. The Frank Kwiecien Memorial Scholarship was established to recognize two students in Year 3 of the undergraduate program who demonstrate exceptional vision and outstanding leadership through volunteer service to the community and the profession, and who are eligible for financial assistance under the OTSS guidelines.

**E.A. Lovell Scholarship in Pharmacy**

The family of the late Mr. E.A. Lovell, Phm.B., Oshawa, provided this scholarship to be awarded to a student who obtains First Class Honours at the annual examinations of the Third Year and has not won an award of greater value.

**Jeanette Mednick Memorial Scholarship**

The family of Jeanette Mednick (nee Danilack), son Howard, and daughters Joanne Myles and Adrienne Yamaguchi, have established this scholarship in memory of their mother who graduated from the Ontario College of Pharmacy in 1946. This scholarship is to recognize the pursuit of academic excellence, as characterized by Mrs. Mednick, and will be allocated to the student who also receives the Parke Medal (highest in First Class Honours at the annual examinations of Third Year). Jeanette Mednick was one of the earliest recipients of this medal and it is her family's wish that this medal continue to be awarded. This scholarship will subsidize the Parke Medal fund and also provide a monetary award.

**Metro Ontario Pharmacies Award for Health and Wellness**

Metro Ontario Pharmacies Limited was founded in 1975. The company's line of business includes the retail sale of prescription drugs and non-prescription medicines. They established this award, which will be given to the student in Year 3 of the undergraduate program who achieves the highest final grade in PHM388H1 Self-Care Perspectives and Pharmacotherapy for Minor Ailments.

**Ed Mirvish Centennial Scholarship in Pharmacy**

This scholarship, presented by Honest Ed's Pharmacy Limited, will be awarded to the student who stands highest in First Class Honours at the annual examinations of Third Year and who has not won an award of greater value.

**Starr Wilfred Oldershaw Scholarship**

Mrs. Dorothy Oldershaw Cole has established the Starr Wilfred Oldershaw Scholarship in memory of her father, a graduate of the Ontario College of Pharmacy. The scholarship is to be awarded to a Third Year student with the highest standing in First Class Honours, who has not won any other award of equal or greater value.

**Ontario Pharmacists Association Award**

The Ontario Pharmacists Association is the largest advocacy organization, continuing education and drug information provider for pharmacy professionals in Canada. They are dedicated to working on behalf of patients, pharmacists, pharmacy students and pharmacy technicians across Ontario to evolve the practice of pharmacy and advocate for the highest standards of professional excellence and fair compensation. They established the Ontario Pharmacists Association Award to recognize, on an annual basis, up to five students entering Year 4 of the undergraduate program who have achieved academic excellence (minimum Grade Point Average of 3.0) and have demonstrated outstanding service to the community. Recipients must be student members of the Ontario Pharmacists Association in each of Years 1, 2 and 3 to be eligible for this award.

**Osborne Scholarship**

The Estate of M.R. Osborne has provided for a scholarship to be awarded to the student who obtains the highest standing in First Class Honours at the annual examinations of the Third Year, who proceeds to Fourth Year, and who has not won an award of equal or greater value.

**Lieut. George R. Parke Medal**

A gold medal in memory of the late Lieut. Geo. R. Parke, Phm.B. (Class of 1910–11), will be awarded to the student who stands first in First Class Honours at the annual examinations of the Third Year.

**Ruth Segal Memorial Award**

This award has been established by friends and colleagues of Ruth Segal to honour her memory. It will be presented to the Third Year student who obtains the highest standing in PHM386H1 Mental Health and Addiction.

**Shoppers Drug Mart Award**

This award was established by Shoppers Drug Mart to acknowledge individuals who demonstrate outstanding leadership in student activities at the Faculty, and to reward achievement in an area of study that will lead students to become successful innovative community practice pharmacists. The Shoppers Drug Mart Award is awarded to a student entering Year 4 of the undergraduate program, who is a member of the Council of the Undergraduate Pharmacy Society, and has achieved the highest standing in the Community Pharmacy Management course (PHM370H1).

**Kenny Tan Award**

Kenny Tan graduated from the Faculty of Pharmacy in 1998. He is a community pharmacist who prides himself on being an educator and a mentor. He has been an ongoing contributing member of the Faculty in the capacity of a mentor to First year pharmacy students, preceptor to SPEP and APPE students as well as a lecturer in both Experiential and Medication Therapy Management courses. As an undergraduate student at the Faculty, Kenny held positions on the Executive Committee of the Undergraduate Pharmacy Society for three years. He was the recipient of the Walton Award after his Third year and received a Gordon Cressy Student Leadership Award in Fourth year. Kenny has always believed that it is important to be a well-rounded individual and that students maintain a good balance in their social, athletic and academic life. Kenny established this award to reflect this. The Kenny Tan Award will be given annually to a student in Year 3 of the undergraduate pharmacy program who has a minimum academic standing of Second Class Honours and has accumulated the most UPS points for their cohort in the year of the award.

**Undergraduate Pharmacy Society Award**

This award, established by the Undergraduate Pharmacy Society, is given to a Year 3 student who has made a significant contribution to the undergraduate student life over the past year and who has not held a position on UPS or Class Council in that year. Nominations are made by each class, are approved by UPS, and are forwarded to the Faculty's Awards Committee for final selection.

**Arthur and Pat Ward Scholarship**

A bequest by the late Eleanor J. Ward has provided for a scholarship to be awarded to a Third Year student who demonstrates academic proficiency and has not received an award of greater value.

**Sharon Wells Memorial Award**

This award has been established by Philip Feldberg in honour of Sharon Wells and in memory to her family. Sharon was a pharmacy assistant at Medico Pharmacy for 22 years. The recipient will be nominated by class members of Third Year and, like Sharon, have demonstrated leadership skills, be dependable, compassionate, socially active and generous in helping others.

**Fourth Year Awards****American College of Apothecaries Award**

The Ontario Branch of the American College of Apothecaries has established an award for a Fourth Year student who has won the patient counselling competition.

**Tom Chin Clinical Leader Award**

Tom Chin passed away suddenly in 2009, and is remembered for his many significant contributions to the pharmacy profession through his involvement in clinical practice, teaching, research and management. He obtained his Bachelor of Science in Pharmacy degree from the Faculty of Pharmacy in 1977 and his Doctor of Pharmacy degree from the University of Minnesota in 1980. The following year, Tom completed a one-year Post-Doctoral Research Fellowship at the Hennepin County Medical Center in Minneapolis, Minnesota. As an educator, Tom was always extremely dedicated to teaching, and he contributed to the learning of many practitioners, undergraduate pharmacy students, pharmacy residents, PharmD students and medical students. He was also very involved in clinical research. As principal or co-investigator of numerous studies, primarily in the area of infectious diseases, he demonstrated that pharmacists can play a significant role in contributing to healthcare research. Tom approached his work with dedication, passion and resolve, and consistently produced results that were of high calibre and generated pride from his fellow pharmacists. He always strived to provide exemplary pharmaceutical care to his patients. The Tom Chin Clinical Leader Award is awarded to the Year 4 student with the highest total grades in the seven required pharmacotherapy courses, who is also the recipient of a University of Toronto Student Leadership Award.

**Harry and Frances Forman Award**

Harry Forman graduated from the Faculty of Pharmacy in 1947 at the age of 20. He had an almost sixty-year professional career including, as a young pharmacist, co-owner of a neighborhood pharmacy, a many-year associateship with Shoppers Drug Mart, and, in later years, working as a part-time pharmacist before retiring at the age of 80. Harry loved his

career in pharmacy, in part because of his life-long, close relationships with fellow pharmacists, but largely because of all the many customers he got to know and care for over the years, often delivering prescriptions to those who could not easily come in to pick up their medications. Harry's closest partner in life was his dear wife Frances and together they raised four children. Harry and Frances Forman were married for sixty years before they passed away within two months of each other in 2014. The Harry and Frances Forman Award will be presented to a student in Year 4 of the undergraduate program at the Leslie Dan Faculty of Pharmacy who best demonstrates dedication to the practice of pharmacy by going above and beyond in the provision of patient care. The recipient must have achieved at least Second Class Honours in each of Years 1, 2 and 3, and must have achieved at least a Pass standing in all Year 4 experiential rotations.

#### **Mary T. Gannon Award**

This award was established by the donor in honour of her sister Mary (Class of 5T6) who was the Director of Pharmacy at Princess Margaret Hospital for 35 years. Mary was actively involved in the profession, in particular with the Canadian Society of Hospital Pharmacists. She strongly believed in mentoring the next generation of pharmacists. The recipient of the Mary T. Gannon Award will be a Fourth Year Pharmacy student who has been accepted into a hospital pharmacy residency program.

#### **Doris C. Kalamut Leadership Award**

Doris Kalamut graduated from the Faculty of Pharmacy in 1978. She returned in 1981 to teach on a part-time basis, and became a full-time course coordinator and lecturer in Professional Practice in 2004. In 2012, she was appointed the inaugural Director of Student Experience and Academic Progress at the Faculty. Mrs. Kalamut was very involved in student activities while attending the Faculty. She was valedictorian and president of her graduating class and remains actively involved in class activities, organizing all class reunions and spearheading the establishment of the Class of 7T8 award at the Class' 35th reunion in 2013. A long-time supporter of Pharmacy students, Mrs. Kalamut established the Doris C. Kalamut Leadership Award to advocate for student success by encouraging leadership skills and involvement in extracurricular activities. It is awarded to a student in Year 4 of the PharmD program who achieves academic excellence with a minimum Annual GPA of 3.00 in each of Years 1, 2 and 3; a grade of Honours in at least 1.0 full-course equivalent in Year 4; and a grade of Pass in all remaining Year 4 courses. The successful candidate must exhibit strong leadership skills and must have been involved in extracurricular activities that contribute to the betterment of student life at the Leslie Dan Faculty of Pharmacy. If, in a given year, a suitable candidate is not identified, the award will not be bestowed.

#### **Leon Koffler Memorial Scholarship**

In memory of Mr. Leon Koffler, Shoppers Drug Mart/Pharmaprix Life Foundation presents a scholarship to the Fourth Year student with the highest cumulative GPA who achieves an Honours grade in PHM414Y1 Community Practice Direct Patient Care.

#### **Marvin Kopstick Scholarship**

This award was established by colleagues and friends in memory of Marvin Kopstick, who passed away suddenly in May 1997. Reflective of Mr. Kopstick's extensive involvement in his community, this scholarship will be awarded to up to five Year 4 students who demonstrate significant involvement in their community while registered at the Leslie Dan Faculty of Pharmacy. Recipients must have achieved at least Second Class Honours in each of Years 1, 2 and 3, and must have achieved at least Pass standing in all Year 4 courses.

#### **Danusia Oczko Award**

The friends and family of Danusia Oczko, Class of 8T6, have established this award in honour of her determination, faith and courage. The recipient will be a Fourth Year student who has been accepted into a hospital pharmacy residency program and has contributed significantly to undergraduate professional, athletic and student life. The point system of the Undergraduate Pharmacy Society will be used as an aid in selecting the recipient.

#### **Bob Pritchard Memorial Award**

This award is in memory of Bob Pritchard who was the Manager of Pharmacy Practice Programs at the Ontario College of Pharmacists at the time of his sudden death in September 1995. Mr. Pritchard was a 1975 graduate of the Faculty of Pharmacy. He operated a community pharmacy until the early 1980's before becoming Director of Education and later the Professional Services Coordinator for one of the prominent pharmacy chains. Mr. Pritchard became involved in the Ontario College of Pharmacists' Council in 1983, was elected President in 1992, and became Manager of Pharmacy Practice Programs in 1993. He was a highly respected member of the pharmacy community, and a friend to all who knew him. This award will be presented to the Fourth Year student who has obtained the highest cumulative points awarded by the Undergraduate Pharmacy Society (2/3 social; 1/3 athletic), who has achieved at least Second Class Honours in Years 1, 2 and 3, and who has achieved at least Pass standing in all Year 4 courses.

**John Roberts Scholarship and Medal**

The John Roberts Scholarship and Medal is awarded to the Fourth Year student who obtains the highest number of Honours grades in the Year 4 courses. If there is a tie, the cumulative GPA will be considered.

**Sydney Shrott Award**

Medical Pharmacies Group Limited established the Sydney Shrott Award to honour the retirement of one of its owners. Sydney Shrott has been a respected visionary and innovator in the profession of pharmacy for over 60 years. Together with his partners, and with a consistent focus on people, he developed and operated 34 clinic pharmacies and became the largest provider of pharmacy services to long-term care homes in Canada. This award is a tribute to his continuing dedication to developing strong pharmacy leaders. The Sydney Shrott Award will be given to a student in Year 4 of the undergraduate program on the basis of financial need, who has achieved the highest total grades in Pharmacotherapy in Older Adults (PHM352H1) and Community Pharmacy Management (PHM370H1), and completes an Ambulatory Care rotation as part of the Advanced Pharmacy Practice Experience program.

**Douglas Stewart Memorial Award**

The Faculty of Pharmacy established this award to honour the memory of Professor Stewart who passed away on May 5, 2000. Professor Stewart was a faculty member from 1963 until his retirement in 1984. During his early years with the Faculty, he was also the Director of Pharmacy at the Toronto General Hospital. In 1967, he established a hospital pharmacy residency program at TGH and initiated a clinical pharmacy service. At the Faculty, Professor Stewart was instrumental in the development of the first undergraduate clinical pharmacy course in Canada and impacted many careers through the Hospital Pharmacy Administration course. As well, he played a key role in hospital pharmacy residency program accreditation through the Canadian Hospital Pharmacy Residency Board. The Douglas Stewart Memorial Award will be allocated to a Fourth Year student who pursues a hospital pharmacy residency.

**Doris Thompson Award**

The friends of Doris Thompson have established this award to be given to the student who achieves the highest grade in Institutional Pharmacy Practice Management (PHM371H1), and who has been accepted into a hospital pharmacy residency program.

**Major F.A. Tilston, V.C., Scholarship**

The graduating class of 1929 established an annual award in honour of Major F.A. Tilston, V.C., a member of the class. The award is given to a Fourth Year student who achieves academic excellence over all four years of the Doctor of Pharmacy program and has not won an award of greater value.

**Undergraduate Pharmacy Society Award**

This award, established by the Undergraduate Pharmacy Society, is given to a Year 4 student who has made a significant contribution to the undergraduate student life over the past year and who has not held a position on UPS or Class Council in that year. Nominations are made by each class, are approved by UPS, and are forwarded to the Faculty's Awards Committee for final selection.

**Deanna Williams Award**

Deanna Williams graduated from the Faculty of Pharmacy in 1976. She joined the Ontario College of Pharmacists (OCP) in 1994 as Director of Programs. Deanna was appointed as Deputy Registrar in 1998 and as Registrar in 2000. This award was established in recognition of her service to the OCP and to the profession of pharmacy. It is given to a student registered in Year 4 of the undergraduate program who has achieved Second Class Honours in Years 1, 2 and 3, and Pass standing in all Year 4 courses, and who has demonstrated: innovative leadership in a pharmacy-related setting; the likelihood of a noteworthy future contribution to the profession; and a commitment to continuous learning. The recipient must have received financial assistance in Fourth Year.

**Bursaries****Mary Asquith Fund**

The Mary Asquith Fund is awarded to a student in any year of the undergraduate program in the Faculty of Pharmacy, based on financial need.

**Professor Zubin Austin Award**

Zubin Austin has been either a teacher or a student at the University of Toronto continuously since 1984, earning two bachelors' degrees, three masters' degrees and a PhD during this time. Since 1994, he has worked full time at the Leslie Dan Faculty of Pharmacy as a Lecturer, Senior Lecturer, and most recently as Professor and inaugural holder of the Ontario College of Pharmacists Professorship in Pharmacy Practice Research. The Professor Zubin Austin Award is

awarded to a student in any year of the professional program who is in financial need and resides the furthest distance away in Canada from the Leslie Dan Faculty of Pharmacy. Students are eligible to receive this award only once during their studies at the Faculty.

#### **Edward E. Barber Award**

Edward E. Barber established this award in recognition of the unselfish contribution Leslie G. Henderson made to the advancement of the profession of pharmacy in the Commonwealth of Canada. This bursary is to be awarded to students demonstrating financial need.

#### **Herbert R. Binder/Shoppers Drug Mart Bursaries**

As a tribute to Herbert R. Binder upon his retirement from Shoppers Drug Mart in February 2001, executives, suppliers and associates of the company pledged donations to establish the Herbert R. Binder/ Shoppers Drug Mart Bursaries. These bursaries will be awarded to students demonstrating financial need who are registered in any year of the undergraduate program.

#### **Brusatin and Nagao Bursary**

Giovanna (Brusatin) Nagao and Jack Nagao, both graduates of the Faculty of Pharmacy at the University of Toronto, established this entrance bursary to assist full-time undergraduate students from Ontario. The Brusatin and Nagao Bursary is awarded to one or more students entering Year 1 of the undergraduate pharmacy program who have not completed a prior degree upon admission.

#### **Cirocco Bursary**

Virginia Cirocco is a graduate of the Faculty of Pharmacy and recently stepped down as Executive Vice-President, Pharmacy, at Shoppers Drug Mart. This bursary has been established not only to assist students in financial need, but also to acknowledge and reward achievement in an area of study that will lead students to become successful and innovative community practice pharmacists. The Cirocco Bursary is awarded to students in the Third Year of the undergraduate program on the basis of financial need who have achieved the highest standing in PHM215H1 Management: Skills, Communication and Collaboration.

#### **Class of 7T1 Award**

In recognition of their 50th class reunion, and as a way to give back to a profession that has benefited so many, the Class of 7T1 established this award to recognize a pharmacy student who makes a significant contribution to student life beyond the classroom. The Class of 7T1 Award will be given to one or more Second year students at the Leslie Dan Faculty of Pharmacy on the basis of their involvement in extra-curricular activities and student life at the Faculty, including, but not limited to, student leadership roles, volunteerism in the activities of the Faculty, and/or participation in event planning committees, student clubs and/or inter-mural sports. The recipient(s) must also qualify for financial assistance. The award will not be given if a suitable candidate is not identified.

#### **Ben Cohen Bursary Fund**

The Ben Cohen Bursary Fund provides financial support to students demonstrating financial need who are registered in any year of the undergraduate program.

#### **Dean's Award**

The Dean's Award was established through the net proceeds of the 2006 Pharmacy Golf Classic Tournament and by subsequent event proceeds and other contributions. The Pharmacy Golf Classic was a tournament, which brought together members of the Faculty (including student representatives) with representatives from the pharmaceutical industry and the pharmacy community for the purpose of raising funds to support students. The Dean's Award will be awarded to undergraduate students on the basis of financial need.

#### **Yahya Farag Bursary**

Yahya Farag established a bursary in gratitude for the support he received while a student at the Faculty of Pharmacy. The bursary will be awarded to a Year 2 student on the basis of financial need who achieved high academic standing in the course PHM141H1.

#### **Philip Feldberg Award**

Philip Feldberg was a 1969 graduate of the Faculty's BScPhm program. He founded Medico Pharmacy in 1970 and built the company into one of the largest multi-level support pharmacies for long-term care facilities in the Greater Toronto Area. Mr. Feldberg passed away in April 2005, after a courageous battle with prostate cancer. In his will, he provided a gift to establish a bursary which is awarded to undergraduate students on the basis of financial need.

**Nathan and Ethel Gotfrid Scholarship**

A bequest by the late Ethel Gotfrid, in memory of her husband Nathan, has provided for a scholarship to be awarded to a student demonstrating financial need.

**Barry Haberman Retirement Bursary**

This bursary has been established by Mr. Haberman's aunt, Enid Cohen Lichter, in honour of his retirement in 2000. After graduating from the Faculty in 1953, Mr. Haberman practised in community pharmacy for over forty-five years. This award will be allocated to a student in any year of the undergraduate pharmacy program who demonstrates financial need. Preference will be given to a student interested in pursuing community pharmacy.

**Ron Harris Bursary**

The North Bay and District Pharmacists' Association have established a bursary in memory of Ron Harris, a local pharmacist. This bursary will be awarded to a deserving and needy student, preferably from Northern Ontario.

**John Christie Higgins Bursary**

The John Christie Higgins Bursary is awarded to a student, or students, in any year of the undergraduate program in the Faculty of Pharmacy, based on financial need.

**Dean F. Norman Hughes Award**

This award has been established in honour of F. Norman Hughes, Dean of the Faculty of Pharmacy from 1953 to 1973. The award will be given to a student registered in Fourth Year, who demonstrates the greatest financial need. The recipient may not receive an award of equal or greater value in the same academic year.

**Maxwell D. Joel Memorial Bursary**

Rokeah Chapter, Rho Pi Phi Pharmaceutical Fraternity, presents this bursary in memory of their friend and colleague, Maxwell D. Joel. The bursary will be awarded to a Third Year student who demonstrates financial need, and preferably having attained at least Second Class Honours.

**John Dalziel Johnson Memorial Award**

A bequest by the late John Dalziel Johnson, who graduated from the Ontario College of Pharmacists in 1931, provided for an award for students in the undergraduate program who demonstrate financial need.

**Sidney & Elaine Kadish Bursary**

Sidney Kadish (Class of 5T7) and friends established this award to help students from Northern Ontario pursue a career in pharmacy with the intent that this may inspire the recipients to practice pharmacy in Northern Ontario. Therefore, the bursary will be awarded to undergraduate students from Northern Ontario (i.e., from North Bay, or villages, towns or cities north of North Bay), who demonstrate financial need. It will also be given to assist students with any additional expenses associated with completing experiential rotations in Northern Ontario.

**May Kong Memorial Bursary**

The Class of 9T4 and faculty have established a bursary in memory of their classmate and friend, to show their respect and admiration of her courage. This bursary will be awarded on the basis of financial need.

**Albert and Evelyn Krakauer Award**

The Albert and Evelyn Krakauer Award will be awarded to undergraduate students on the basis of financial need and who have achieved First Class Honours in the Practice Management Course.

**Ladies Auxiliary Fund, Hamilton**

The Ladies Auxiliary Fund, Hamilton is awarded to a student in any year of the undergraduate program in the Faculty of Pharmacy, based on financial need.

**Ladies Auxiliary Student Fund**

The Ladies Auxiliary Student Fund is awarded to a student in any year of the undergraduate program in the Faculty of Pharmacy, based on financial need.

**David Lang Memorial Bursaries**

Mrs. Anna Lang established a bursary in memory of her late husband to be awarded to a deserving student who is entering the final year of the undergraduate program. Ms. Karen Lang established a similar bursary in memory of her late father also to be awarded to a deserving student who is entering the final year of the undergraduate program. Both recipients will be selected on the basis of financial need.

**Janice Lawrie Memorial Bursary**

This award has been established by the friends and family of Janice Lawrie (Class of 8T9) in memory of her dedication to the profession. The bursary will be given to a student in Third or Fourth Year of the undergraduate program, who is from the Barrie/Orillia area, and who demonstrates financial need.

**Lightstone and Hainsworth Bursary**

Richard Hainsworth is a graduate of the Faculty of Pharmacy at the University of Toronto (Class of 5T7). This bursary will be awarded to a minimum of two students in Year 4 of the undergraduate program on the basis of financial need, who have achieved First Class Honours in Year 3 of the undergraduate program.

**Joseph Litchen Memorial Bursary**

Rokeah Chapter, Rho Pi Phi Pharmaceutical Fraternity, presents this bursary in memory of their friend and colleague, Joseph Litchen. The bursary will be awarded to a Fourth Year student who demonstrates financial need, and preferably has attained at least Second Class Honours.

**London and District Pharmacists' Association Bursary**

The London and District Pharmacists' Association offer this award to two students, preferably in First Year, who graduated from a secondary school in Middlesex, Elgin or Oxford county, and who have demonstrated financial need. No student can receive the award more than once.

**Grace Mak Award**

Family and friends established this award to honour Grace Mak. She was a 1998 graduate of the Faculty and pursued a career in community pharmacy in Orillia. Grace had an excellent rapport with her clients and treated each with dignity and respect. She had a passion for life and for people. The Grace Mak Award will be awarded to students demonstrating financial need who are registered in any year of the undergraduate program.

**Dinah Mancini (Skaistys) Bursary**

The late Dinah Mancini (Skaistys) graduated from the University of Toronto, Faculty of Pharmacy in 1979. After graduation, Dinah returned to her home in Grimsby, Ontario and practiced her profession for more than 30 years, primarily with Shoppers Drug Mart. To honour Dinah's memory and dedication to her profession, her family and friends have established the Dinah Mancini (Skaistys) Bursary, which is awarded to a student in Year 3 of the undergraduate program on the basis of financial need, who is a graduate of a high school in the Niagara Peninsula. If there is not a student from Year 3 that meets the bursary conditions, a student will be selected from Year 2 of the undergraduate program. If the criteria are still unmet, the geographic region will be extended to the Hamilton/Burlington area.

**Frank Rogers Marmoraton Memorial Award**

This bursary has been established through a generous endowment from Ross A. Rogers, in memory of his father, Frank Rogers. Two recipients will be identified annually who demonstrate financial need: to one student who will have enrolled in Second Year and to a second student who will have enrolled in Third Year of the undergraduate Pharmacy program.

**Nellie Adams Martin Bursary**

The CSL Group Inc. have established this bursary to be awarded to a student who demonstrates financial need.

**T.F. "Jock" McCrossan Memorial Award**

This award has been established by the family of Thomas Frederick "Jock" McCrossan in memory of his years of service to the staff and students of the Faculty of Pharmacy. "Jock" was a valued member of the faculty staff; his friendly and helpful manner endeared him to all who came in contact with him. The award will be allocated to one student enrolled in each of Years 1, 2 and 3, and to four students enrolled in Year 4. Recipients must have achieved at least Second Class Honours.

**Gordon Murray Award**

The family of Gordon Murray established this award in his honour. Mr. Murray graduated from the Faculty of Pharmacy in 1973. He was a member of the Canadian Society for Hospital Pharmacists, Ontario Branch, from 1972 until the time of his death, serving as President from 1993 to 1994. Among his many other accomplishments, he served as Chairman of the Association of Directors of Pharmacy, Metro Toronto Hospitals, in 1989, and was a Council Member for the Ontario College of Pharmacists from 1998 to 2000. He also made numerous presentations to community groups on medication use and safety, and both organized and delivered presentations at educational sessions for pharmacists. The Gordon Murray Award will be awarded to students demonstrating financial need who are registered in any year of the undergraduate program.

**Edwin H. Nelson Memorial Fund**

The Edwin H. Nelson Memorial Fund was given by the late Mr. Lemuel W. Famulener to aid students of special ability and of high character, who demonstrate financial need, to obtain an education.

**Kan Hoi Herrick Ngan Pharmacy Award**

Mrs. Sue Ngan established a bursary in memory of her late husband, Mr. Kan Ngan (Class of 7T1), to honour his passion for pharmacy, and to help deserving pharmacy students pursue their studies. The Kan Hoi Herrick Ngan Pharmacy Award will be awarded to one full-time undergraduate student in any year of study at the Leslie Dan Faculty of Pharmacy on the basis of financial need.

**Robert Bruce Otto Bursary**

The estate of Edna FitzPatrick Otto, in memory of her late husband Robert Bruce Otto, provides this award to a student who demonstrates financial need. Eligible recipients should preferably have come from a small town, village or rural municipality in Electoral District #2 [Counties of Durham, Frontenac, Haliburton, Hastings, Lennox and Addington, Northumberland, Peterborough, Prince Edward, and Victoria].

**Anna M. Pearson Bursary**

The Anna M. Pearson Bursary was established by the late Mr. Fred Pearson to provide aid to deserving undergraduates in pharmacy who have a good scholastic record.

**Pharmacy GRADitude Bursary**

The Pharmacy GRADitude Bursary will be awarded to an undergraduate pharmacy student registered in Year 4 of the program who demonstrates financial need. The recipient must have been involved in UPS or Class Council while registered in Year 3.

**Tricia Ramsumair/Pharmacy Class of 9T9 Award**

The Class of 9T9 has established this award to commemorate the life of Tricia Ramsumair. Tricia's cheerful disposition and quiet kindness has left a lasting impression on her classmates. This bursary will be awarded to a Third Year student on the basis of financial need.

**Ernest Martin "Cappy" Rix Award**

Dr. Donald B. Rix has established this award in honour of his father, Ernest Martin "Cappy" Rix, a graduate of the Class of 2T7. This bursary will be awarded to Second Year students who demonstrate financial need.

**Shoppers Drug Mart Award**

Through a generous endowment from Shoppers Drug Mart, awards will be given annually to students who demonstrate financial need, and who have successfully completed First, Second or Third Year of the undergraduate Pharmacy program. The awards to students who have successfully completed Second Year are designated as the **Arthur and Gordon Resnick/Shoppers Drug Mart Award**, in recognition of the invaluable contribution these brothers made to the profession of pharmacy and to the success of the company. The awards to students who have successfully completed Third Year are designated as the **Izzy Snyder/Shoppers Drug Mart Award**. This is to honour Mr. Snyder's commitment and loyalty to the company and to the profession.

**Allan Martin Starkman Memorial Bursary**

Mrs. Catherine Starkman has established a bursary in memory of her late husband to be awarded to a deserving student who is entering the final year of the undergraduate program. The recipient will be selected on the basis of financial need.

**Vi Stringer Memorial Bursary**

The friends of Vi Stringer have established this bursary in her memory, to be awarded to a deserving student in any year of the undergraduate program who has demonstrated financial need.

**Bev Sweezey Experiential Bursary**

This bursary was established by Andrea Sweezey (Cameron), Associate Professor Emeritus, Teaching Stream, at the Leslie Dan Faculty of Pharmacy. Bev Sweezey was Andrea Sweezey's aunt, who graduated from the University of Toronto with a BScPhm degree in 1953. Ms. Bev Sweezey practiced as a dedicated community pharmacist for many years, in various rural Eastern Ontario towns, as well as in Kingston and Toronto. She was known for her interest in helping the elderly and for being very supportive of new learners on their path to becoming the next generation of pharmacists. The Bev Sweezey Experiential Bursary is awarded to a student in Year 4 of the Professional Program embarking on their Advanced Pharmacy Practice Experiential rotations who is in financial need.

**Teva Canada Bursary**

The Teva Canada Bursary was established at the Leslie Dan Faculty of Pharmacy through a donation from Teva Canada Limited to celebrate the tenth anniversary of their operations in Canada and their formal name change from Teva Novopharm to Teva Canada. This bursary is awarded to a student in any year of the undergraduate program on the basis of financial need.

**Helen M. Walton Bursary**

Helen M. Walton joined the Ontario College of Pharmacy in 1941. Her role was initially a dual one – that of secretary to the academic staff including the Dean, as well as librarian of the College. In 1953, when the College became the Faculty of Pharmacy, she was primarily Secretary to the Dean. In 1973, she became the Faculty Secretary and through her dealings with students, she had opportunity to witness the impact of financial assistance. She established the Helen M. Walton Bursary to help pharmacy students pursue their studies. This bursary will be awarded to students on the basis of financial need.

**WatChing Bursary**

Martina (Ching) Siu and Isaac Wat are graduates of the Faculty of Pharmacy, Class of 9T3. To express their gratitude for the many opportunities in their life journeys since graduation and to celebrate their lifelong friendship, they established an award to help pharmacy students pursue their studies. The WatChing Bursary will be awarded to one full-time undergraduate student in any year of study at the Leslie Dan Faculty of Pharmacy on the basis of financial need.

**Douglas Wingfield Memorial Bursary**

This award was established through a bequest from Douglas Wingfield, a 1956 graduate of the Faculty of Pharmacy. The Douglas Wingfield Memorial Bursary will be awarded to undergraduate students on the basis of financial need.

**Selene Wong Memorial Bursary**

The Class of 9T5 has established a bursary in memory of their classmate, to be awarded to a Second Year student based on financial need. The recipient will also have participated in social and athletic activities, served on class council or faculty committees, and made a meaningful contribution to the class spirit.

**Neil and Merda Wood Bursary**

The Neil and Merda Wood Bursary will be awarded to a student in the First Year of the undergraduate program on the basis of financial need and who obtains a high admission index.

# PharmD for Pharmacists Program

## Sessional Dates

### Fall Session, 2021

Monday, September 6	Labour Day; University closed
September 7 to 9	Orientation for Fall 2021 cohort
Thursday, September 9	Classes commence
Monday, October 11	Thanksgiving; University closed
Wednesday, November 3	Last day to cancel (drop) courses with F section codes
Wednesday, December 8	Classes end
December 10 to 21	Examination period

### Winter Session, 2022

Monday, January 3	Classes commence
January 3 to TBD	Orientation for Winter 2022 cohort
Monday, February 21	Family Day; University closed
Friday, March 4	Last day to cancel (drop) courses with S section codes
Friday, April 8	Classes end
April 11 to 29	Examination period
Friday, April 15	Good Friday; University closed

### Summer Session, 2022

TBD

## Program Description, Admission and Completion Requirements

If you are a Pharmacist interested in making a difference in patient care, embracing the changing scope of pharmacy, and helping the healthcare system evolve, we want you to apply to the PharmD for Pharmacists program at the Leslie Dan Faculty of Pharmacy.

The PharmD for Pharmacists program is ideal for motivated pharmacists and self-directed learners interested in expanding their skills and shaping their practice through a flexible, customizable, Canadian PharmD program.

You will combine coursework and experiential learning to equip yourself with the tools to expand your knowledge and skills, and to advance your practice to embrace the changing scope of pharmacy practice. Participants in this customizable program graduate with a Doctor of Pharmacy degree from the University of Toronto.

The PharmD for Pharmacists program at the Leslie Dan Faculty of Pharmacy is designed to meet the changing needs of today's pharmacists. Flexible and customizable, this unique Canadian program combines course work and experiential learning to build on the knowledge and skills you have acquired through your Bachelors' degree (or equivalent) in Pharmacy and experiences in practice to obtain a Doctor of Pharmacy degree from the University of Toronto.

Course work in pharmacotherapy, critical appraisal, physical assessment, pharmacokinetics, educational theories, and health systems, provides you with the foundation needed to advance your practice and fully embrace the changing scope of pharmacy in Canada. These cutting-edge courses will be delivered in a variety of formats, including online lectures,

online facilitated discussions, case-based learning, problem-based learning, independent project work, onsite didactic classes, and small group discussion. Advanced experiential rotations will help you develop and enhance your practice skills and provide you with exposure to different areas of practice.

Work at your own pace by adjusting your course load per term. Students are required to complete the program in four (4) years. Customize your experience by selecting courses that interest you and matter to your practice setting. Apply to the PharmD for Pharmacists program today to start enhancing your skills and advancing your practice.

## Admission Requirements

The PharmD for Pharmacists program is designed to equip practicing pharmacists and recent graduates with the skills, knowledge, and experience to engage in an expanded scope of practice. The admissions process identifies the best possible candidates by assessing each applicant's overall achievements, including those in academic and non-academic areas. It is understood that current clinical practice and academic excellence are necessary, but not sufficient, to ensure success. A multitude of factors are used to determine the appropriateness of every candidate. As the applicant pool varies in qualifications, there is an overlap in the distribution of applicants' practice settings, clinical skills, GPAs, and other criteria in accepted and declined candidates.

Only individuals who fulfill one of the three requirements listed below may apply for admission:

- i. Pharmacists who have graduated with a Bachelor's degree from an accredited (CCAPP) Canadian Pharmacy program or an accredited (ACPE) American Pharmacy program, or
- ii. Pharmacists who are currently licensed to practice as a pharmacist in any Canadian jurisdiction (those licensed in Quebec only will be required to demonstrate English proficiency), or
- iii. Pharmacists who have graduated with the equivalent of a Bachelor's degree in Pharmacy from any International Pharmacy School AND have successfully completed the Pharmacy Examining Board of Canada (PEBC) Evaluating Exam or the Foreign Pharmacy Graduate Equivalence Exam (FPGEE).

## Application Process:

1. Complete and submit an application package, consisting of:
  - a. Application form
  - b. Curriculum vitae (or resumé if preferred by applicant), including cover letter
  - c. Transcript(s) from all post-secondary studies (an unofficial copy to be uploaded by the application deadline and official copies submitted by the post-secondary institution for those applicants selected for interviews)
  - d. Two confidential Professional References (must be submitted directly to the PharmD for Pharmacists program by the referees)
  - e. Application fee - \$200.00 Canadian (non-refundable)
  - f. Proof of English proficiency, if required
2. Interview
  - a. Selected applicants will be invited to participate in an interview process.
  - b. All selected applicants will be required to have official transcripts forwarded to the program from each of their post-secondary institutions
  - c. Interviews will be conducted virtually, and will include both verbal and written components.

Not all candidates who meet the minimum requirements are offered an interview in the application process or a position in the program.

## Application Timelines:

The upcoming admission cycles are listed below:

	<b>Application Deadline</b>	<b>Application Status Update</b>	<b>Interviews</b>
September 2022	February 1, 2022	Early March	Late March-Mid April 2022
January 2023	July 15, 2022	Mid August	Mid-late September 2022

*\*Dates are subject to change*

Applications not received in their entirety by the above deadlines will be considered for the next intake deadline respectively.

Admission offers to the PharmD for Pharmacists program cannot be deferred. Students wishing to defer must re-apply for admission.

## Completion Requirements

To earn your Doctor of Pharmacy (PharmD) degree from the PharmD for Pharmacists program at the Leslie Dan Faculty of Pharmacy, University of Toronto, you are required to complete sixteen (16) courses as follows:

1. Course Requirements (11 courses);
2. Experiential rotations (4 rotations); and
3. Elective (1 course or 1 rotation).

All requirements must be completed as follows:

- Minimal course requirements annually (defined as 3 consecutive terms – winter, spring/summer, fall): 4 courses
- Maximal time allowed to complete degree: 4 years

### 1. Course Requirements:

Students must complete a total of 11 didactic courses as specified below:

- a. Foundations for Advanced Pharmacy Practice – 1 course
- b. Critical Appraisal – 1 course

*Foundations for Advanced Pharmacy Practice and Critical Appraisal are pre-requisites or co-requisites for all other degree requirements.*

Foundations for Advanced Pharmacy Practice is offered as a hybrid course with a 1-week intensive segment completed on-site at the Leslie Dan Faculty of Pharmacy, 144 College Street, Toronto in January or September and additional course work completed online throughout the semester. Due to the pandemic, there may be a need to shift the delivery method to online. Please contact the Program Office for more information.

- c. Pharmacotherapy/Contemporary Topics courses – 5 courses
- d. Health Systems/Social Administration – 1 course
- e. Physical Assessment – 1 course
- f. Pharmacokinetics – 1 course
- g. Teaching, Learning & Presentation – 1 course

### 2. Experiential Rotations:

Students must complete a total of four (4) rotations, each rotation is five (5) weeks in length, as follows:

- a. Direct patient care rotations – 3 rotations
- b. Elective rotation – 1 rotation

Students will have the ability to select from a variety of elective rotations, including: drug information, research, administration, education, consulting, industry, global health, and direct patient care.

### 3. Elective:

To satisfy this requirement, students must successfully complete one (1) of the following:

- a. A course approved by the Program (e.g. Pharmacotherapy course, PHM500 series course). or
- b. Experiential Rotation

## PharmD for Pharmacists Program Courses

### **PHM520H1 Global Pharmaceutical Policy**

Please refer to [PHM320H1](#) Global Pharmaceutical Policy

### **PHM521H1 Selected Topics in the Pharmaceutical Industry**

Please refer to [PHM321H1](#) Selected Topics in Industrial Pharmacy

### **PHM522H1 Patient/Medication Safety**

Please refer to [PHM322H1](#) Patient/Medication Safety

### **PHM550H1 Pharmacotherapy in Ambulatory Care**

Please refer to [PHM350H1](#) Pharmacotherapy in Ambulatory Care

### **PHM551H1 Pharmacotherapy in Institutional Care**

Please refer to [PHM351H1](#) Pharmacotherapy in Institutional Care

### **PHM552H1 Pharmacotherapy in Older Adults**

Please refer to [PHM352H1](#) Pharmacotherapy in Older Adults

### **PHM553H1 Pharmacotherapy in Critical Care**

Please refer to [PHM353H1](#) Pharmacotherapy in Critical Care

### **PHM581H1 Medical Imaging for Pharmacists**

Please refer to [PHM381H1](#) Medical Imaging for Pharmacists

### **PHM587H1 Global Health**

Please refer to [PHM387H1](#) Global Health

### **PHM601H1 Foundations of Advanced Pharmacy Practice**

The primary goal of this course is to provide students with a process for the provision of pharmaceutical care, and the tools to become an advanced practitioner.

### **PHM606H1 Critical Appraisal**

This course is designed to develop literature evaluation skills at an intermediate level for Doctor of Pharmacy students. The course covers a variety of forms of clinical evidence the student will be presented with as a clinician. Students will develop foundational knowledge and skills in research methods, statistics and critical appraisal that will be applied in pharmacotherapy courses. Experience is gained through practice exercises/assignments, discussion boards, and applied critical appraisal. Assessment is based on participation, assignments and examination.

### **PHM616H1 Advanced Pharmacokinetics**

At the end of the course students should be able to understand the analysis of pharmacokinetic data as it is presented in the medical and/or scientific literature; understand pharmacokinetic principles such that they can interpret individual patient pharmacokinetic data, and demonstrate the application of pharmacokinetic principles to the monitoring of select drugs in patients.

### **PHM617H1 Selected Topics in Social and Administrative Pharmacy**

Pharmacists provide leadership within the health care system and multiple levels (locally, provincially and nationally). This course will enhance students' understanding of the health care system and the health care system context for pharmacy practice. Skills gained will include the ability incorporate ethical and economic principles to analyze policy and operations for the purpose of developing and evaluating programs intended to change pharmacy practice environments.

**Prerequisite:** [PHM606H1](#)

### **PHM618H1 Educational Theory and Practice**

Pharmacists work as educators in a variety of different contexts: for patients, for peers, for students, and for other health professionals. This course will introduce students to major theoretical principles and methods of teaching, learning in the health professions and provide them with opportunities for application in their workplace.

### **PHM619H1 Physical Findings and Assessment**

The Physical Findings and Assessment Course provides students with a general overview of physical assessment techniques for major systems, including cardiovascular, respiratory, peripheral vascular, skin, abdominal, HEENT, neurological and musculoskeletal. The course reviews the skills required to conduct effective patient interviews and to document patient encounters. The course focuses on the skills and knowledge needed to interpret physical assessment findings that are pertinent to evaluating drug therapy. The course serves to complement the knowledge and skills learned from foundational and therapeutics courses.

### **PHM622H1 Patient/Medication Safety**

This course will examine patient safety and the potential for medication incidents from two aspects: (1) the medication-use system (e.g. prescribing, order entry, dispensing, administration, and monitoring); and (2) patient care (e.g. preventable adverse drug events experienced by patients). It will build on materials from the Institute for Safe Medication Practices Canada (ISMP Canada), the Canadian Patient Safety Institute (CPSI), and the concept of continuous quality improvement in pharmacy practice. The CPSI Patient Safety Competency Domains will be applied to topics covered in this course.

**Prerequisite:** [PHM601H1](#); [PHM606H1](#)

### **PHM650H1 Contemporary Topics in Nephrology**

This course is designed to introduce students with selected topics in nephrology and to develop knowledge and skills to manage common complications related to chronic kidney disease. The course will use a case-based approach with emphasis on the integration and application of fundamental principles to specific clinical situations. All material will be delivered on-line in this course with opportunities for students to pose questions to an expert in the field. Each lesson will incorporate active learning activities for the students to complete to in order facilitate knowledge and skill development.

### **PHM651H1 Contemporary Topics in Infectious Diseases**

This course is designed to advance the student's knowledge and skills in the management of infectious diseases through a focus on selected infection syndromes and their management. The course will be case-based with topics representing commonly encountered infections allowing the student to further develop their pharmacotherapy knowledge to be able to manage complex patients. Students will demonstrate their pharmaceutical care skills as they progress through the course. All material will be delivered on-line with opportunities for the student to pose questions for additional learning to an expert in the field. Each lesson will incorporate active learning activities for the students to complete in order to facilitate knowledge and skill development.

### **PHM652H1 Contemporary Topics in Primary Care**

This course is designed to advance the student's knowledge and skills in the management of common topics encountered in an integrated team primary care practice through a focus on selected topics and their management. The course will be case-based with topics representing commonly encountered diseases allowing the student to further develop their pharmacotherapy knowledge to be able to manage complex patients. Students will demonstrate their pharmaceutical care skills as they progress through the course. All material will be delivered on-line with opportunities for the student to pose questions for additional learning to an expert in the field. Each lesson will incorporate active learning activities for the students to complete in order to facilitate knowledge and skill development.

### **PHM653H1 Contemporary Topics in Oncology**

This course is designed to introduce students with selected topics in oncology and to develop knowledge and skills to manage common complications related to cancer and chemotherapy/biological therapy adverse effects. The course will use a case-based approach with emphasis on the integration and application of fundamental principles to specific clinical situations. All material will be delivered on-line in this course with opportunities for students to pose questions to an expert in the field. Each lesson will incorporate active learning activities for the students to complete in order to facilitate knowledge and skill development.

### **PHM654H1 Contemporary Topics in Cardiovascular Diseases**

This course is designed to advance the student's knowledge and skills in the management of cardiovascular diseases through a focus on selected disease states/syndromes and their management. The course will be case-based with topics representing commonly encountered conditions allowing the student to further develop their pharmacotherapy knowledge to be able to manage complex patients. Students will demonstrate their pharmaceutical care skills as they progress through the course. All material will be delivered on-line with opportunities for the student to pose questions for additional learning to an expert in the field. Each lesson will incorporate active learning activities for the students to complete in order to facilitate knowledge and skill development.

### **PHM655H1 Contemporary Topics in Addictions and Mental Health**

This course is designed to advance the student's knowledge and skills in psychiatry through a focus on selected disorders and their management. There will be an emphasis on substance use disorders, and their comorbidity with other mental health disorders. The course will be case-based with topics representing commonly encountered disorders allowing the student to further develop their pharmacotherapy knowledge to be able to manage complex patients. Students will demonstrate their pharmaceutical care skills as they progress through the course. All material will be delivered on-line with opportunities for the student to pose questions for additional learning to an expert in the field. Each lesson will incorporate active learning activities for the students to complete in order to facilitate knowledge and skill development.

### **PHM656H1 Managing Drug Overdoses**

Pharmacists in a variety of practice settings can have a positive influence on the identification and management of intentional and accidental drug overdoses. This course will provide in-depth reviews of the top drug categories involved in human exposures. This includes analgesics, sedative/hypnotics, antipsychotics, antidepressants, secretagogues, insulin and cardiovascular drugs. Learners will also be able to effectively triage patients who require medical assessment and facilitate self-care when required. Pharmacists who work in emergency departments, intensive care units and general medicine wards will have enhanced understanding of the decontamination, elimination and treatment strategies employed in managing patients experiencing drug overdose.

**PHM751H1 Direct Patient Care Rotation I**

Students will have the ability to select from a variety of DPC rotations, including different specialties in institutional and community settings.

**PHM752H1 Direct Patient Care Rotation II**

Students will have the ability to select from a variety of DPC rotations, including different specialties in institutional and community settings.

**PHM753H1 Direct Patient Care Rotation III**

Students will have the ability to select from a variety of DPC rotations, including different specialties in institutional and community settings.

**PHM761H1 Elective Rotation I**

The rotation is designed to allow student to acquire insight into the structure and functions of various areas of pharmacy practice or the health care system, which may require different knowledge or skills (e.g. pharmacy administration, policy development, drug utilization review, research, etc.). The rotations build on knowledge, skills, and behaviours acquired in earlier academic courses and experiential rotations.

**PHM762H1 Elective Rotation II**

The rotation is designed to allow student to acquire insight into the structure and functions of various areas of pharmacy practice or the health care system, which may require different knowledge or skills (e.g. pharmacy administration, policy development, drug utilization review, research, etc.). The rotations build on knowledge, skills, and behaviours acquired in earlier academic courses and experiential rotations.

**Policies and Procedures****1. Minimal Course Requirement Annually**

In order to ensure all students are progressing through the PharmD for Pharmacists program at an adequate pace to complete the degree within the maximal time allowed, students are required to enroll in at least four (4) courses annually (defined as 3 consecutive terms – winter, spring/summer, fall).

**2. Maximal Time Allowed to Complete the Program**

In order to ensure that all students are progressing through the degree within an acceptable time frame for degree completion, the maximum time allowed to complete this program will be four (4) years.

Accessibility Services Exemption

Students with diverse learning styles and needs are welcome in the PharmD for Pharmacists program. Students who are unable to meet the PharmD for Pharmacists program requirements for minimal course enrollment and/or maximal time allowed to complete program due to medical or other conditions which may be covered under Accessibility Services at the University of Toronto should contact Accessibility Services directly to discuss accommodations that may occur within the program.

**3. Scheduling Rotations**

Rotations will be scheduled through the Office of Experiential Education (OEE) at the Leslie Dan Faculty of Pharmacy. Students must ensure that all required documentation has been received by OEE prior to starting their rotations.

Rotations can be completed concomitantly or interspersed with didactic course work, only after a student has completed the following 3 courses:

- a. Foundations for Advanced Pharmacy Practice
- b. Critical Appraisal
- c. One (1) Pharmacotherapy course

Two (2) direct patient care rotations can only be completed after all didactic work has been completed.

Please note: Each rotation is 5 weeks in length and approximately 200 contact hours in an experiential placement setting. Scheduled rotation days can occur any day of the week including evenings and weekends.

#### 4. Grading Practice Policy

##### Grading Scale:

- a. Didactic courses use the numerical grading scale on which a Grade Point Average is calculated.
- b. Experiential courses (*i.e.*, rotations) use the H/P/F grading scale.

##### Progression through the Program:

- The passing grade for didactic courses is 60%.
- A student who obtains less than 60% in a didactic course may be permitted to write a supplemental examination in the failed course, and would be allowed to proceed to following academic activities conditionally.
  - If the mark on the supplemental exam is greater than or equal to 60%, the student will be deemed to have passed the course and be allowed to proceed as normal.
  - If the mark on the supplemental exam is less than 60%, the student will be deemed to have failed the course and may be allowed to repeat the course at the next viable opportunity. If the failed course is a selective or elective course and the student is allowed to repeat the course, the student may choose to repeat the same course or take another selective or elective of the same kind.-
    - Supplemental exam results will be reported on the transcript as Pass or Fail.
- A student who fails an experiential rotation may undertake a supplemental rotation as scheduled by the Office of Experiential Education. The student would be allowed to proceed to following academic activities conditionally.
  - If the mark on the supplemental rotation is Pass, the student will be allowed to proceed as normal.
  - If the mark on the supplemental rotation is Fail, the student will be deemed to have failed the rotation and may be allowed to repeat the rotation.
    - If the student is allowed to repeat the rotation, the student may choose to repeat the same rotation or take another one of the same kind.

#### 5. Academic Standing

- a. Didactic Courses
  - The maximum number of supplemental exams in didactic courses that a student can attempt over the duration of the program is 4 (four).
  - The maximum number of courses that a student can repeat throughout the program is 2 (two).
- b. Experiential Courses
  - The maximum number of supplemental rotations that a student can attempt over the duration of the program is 1 (one).
  - The maximum number of rotations that a student can repeat throughout the program is 1 (one).

#### 6. Honours Citation

'Honours' citation on the parchments will be based on:

- A Cumulative Grade Point Average of at least 3.50 in all didactic courses, including the pharmacotherapy elective; AND a final grade of 'Honours' in at least 3 (three) of the experiential rotations; OR
- A Cumulative Grade Point Average of at least 3.50 in all didactic courses; AND a final grade of 'Honours' in at least 4 (four) of the experiential rotations, including the elective rotation.

## 7. Withdrawal from the Program

Students who wish to withdraw from the PharmD for Pharmacists Program should consult the Program Coordinator *immediately*. A student who is facing a recommendation for termination of registration, may only withdraw prior to final Termination action by the PFP Program office. Once a student has withdrawn from the program, the student may not re-enter the program. However, the student may re-apply to the same program by completing a new application form.

## Rules for Online Examinations

Students registered in the PharmD for Pharmacists Program are required to write all examinations online. Students with a valid petition or those registered for an accommodation through Accessibility Services may write their examinations at an approved Examination Testing Centre. The Leslie Dan Faculty of Pharmacy (Faculty) uses online proctoring services to ensure exam integrity. Students who take their examinations online must agree to be proctored by such service throughout the duration of the examination.

### Prior to the Examination Day:

1. Students must confirm that they have a valid TCard in their possession prior to each examination. The TCard is the only valid piece of identification accepted by ProctorU. Contact the PharmD for Pharmacist program ([pfp.adm@utoronto.ca](mailto:pfp.adm@utoronto.ca)) if you do not have your TCard.
2. Students must create an account with ProctorU at least two (2) weeks prior to the first examination date in the PharmD for Pharmacist program. Create an account by clicking on the "sign up" button on the [University of Toronto Proctor U Portal Page](#). An account is required to be created once only.
3. Students are responsible for testing their equipment 24 hours prior to the start of each examination. Test the actual equipment (laptop/desktop, webcam, speakers, microphone, etc.) that will be used to write the exam. [Click here](#) to see a full list of requirements. **Student are responsible for testing their equipment prior to the start of each exam.** Failure to test your equipment could result in delays to the launch process. It is important that the equipment test be performed in the same environment in which the exam will be written. Use the same equipment, location, internet connection, etc.

### On the Day of the Examination:

4. Students should log into Quercus and the ProctorU extension to begin their exam.
5. Students must first complete the automated pre-checks to launch their exam. A TCard is required. Contact the office of the PharmD for Pharmacists Program prior to your exam if you do not have a TCard.
6. Students are encouraged to access the internet using a wired connection and to avoid the use of a wireless connection where possible. If a wireless connection is not possible, please make sure you are not streaming additional applications on the WiFi during the time of your exam. This can slow down your connection with ProctorU.
7. Students are allowed to use the washroom during the exam. They are encouraged to use the washroom prior to or after writing exams. However, if a student needs to use the washroom during an exam, they must identify that they are leaving the exam space for a washroom break by stating this out loud. They must not speak to anyone during their time away from the exam space. No additional time will be given to use the washroom.
8. The examination desk space must be clear of any notes, devices and unpermitted resources. There must be nothing on or under the desk.
9. Only one monitor or laptop may be in the room.
10. Recording devices are not permitted. Non-programmable calculators may be permitted if so indicated by the instruction of the Course Coordinator. Cellular phones are permitted to be in the same room in the event ProctorU

attempts to contact the student experiencing technical issues. Cellular phones must be away from immediate reach.

11. Students are not permitted to wear baseball caps or other hats. Religious head coverings are an exception.
12. Sunglasses and earphones are also not permitted.
13. Food brought into the examination room for consumption is limited to a small snack in a transparent bag or container. Wrappers on food products, e.g., granola bars, must be removed. Only drinks in transparent containers (with labels removed) are permitted.
14. All components of online proctoring (webcam and remote desktop monitoring) must be maintained for the duration of the exam.
15. During the exam, the proctor may reach out to the student if they lose the ability to proctor the exam (student's camera view obstructed/loss of remote desktop view). If the proctor contacts the student during the exam through a pop-up message, voice, or a loud beep, the student must respond to the proctor.
16. Failure to respond to the proctor and to re-establish proctoring threatens the integrity of the exam. This will be investigated to determine whether an academic offence has been committed as per the University of Toronto Code of Behaviour on Academic Matters.
17. Students with a valid petition or those registered for an accommodation through Accessibility Services may write their examinations at an approved Examination Testing Centre. Petitions must be submitted to the Program Coordinator at least two weeks in advance of the exam date. All exams must be written on the same day as the examination is offered. Students who petition to write at a testing centre must pay all testing centre fees.
18. At the completion of the examination, a report of student exam-taking behaviours is generated and reviewed by the Faculty and IT staff.
19. Examination grades will NOT be released to students until the integrity of the exam has been verified through ProctorU, the staff of the PharmD for Pharmacists program, and relevant teaching Faculty.

## Missed Examinations or Assignments

**Students are expected to write all examinations as scheduled and to submit all assignments by the specified deadlines. Only in cases of documented illness or legitimate conflict should a student submit a petition requesting accommodation for a missed examination or assignment.**

**Missed examinations** include quizzes, term tests and final examinations which comprise a portion of the total evaluation of a course, where a student is absent for the entire quiz, term test or final examination.

**Missed assignments** include essays, laboratories, case study seminars, workshops and other components which comprise a portion of the total evaluation of a course, where a student fails to hand in or complete the essay, laboratory, case study seminar or other component by the deadline set.

When a student misses an examination or assignment, and wishes to request academic accommodation, it is the student's responsibility to immediately notify the course instructor and Program Coordinator. The student must file with the Program Coordinator a petition for consideration with respect to the missed examination or assignment together with the appropriate supporting documentation. A decision on the validity of the reason will be determined by the Program Coordinator and the Director, PharmD for Pharmacists Program. More complex situations may be referred to the Committee on Academic Standing as required.

The petition and supporting documentation must be filed within **seven** calendar days of the missed examination or assignment in order to be considered. For examinations missed during the regularly scheduled examination periods (December, April and August), petitions must be submitted by the end of the examination period. Supporting documentation should follow in a timely manner if unavailable by the end of the examination period, with an absolute deadline of the relevant Board of Examiners meeting. Information about this date may be obtained from the Program Coordinator.

**Students who are given permission to write make-up examinations or to complete missed assignments must pay a 'Special Examination' fee of \$70 per examination. When students receive information regarding the date and time of the make-up examination, they will also receive fee payment instructions and deadline information. Failure to make arrangements for paying this fee by the deadline provided will result in the loss of privilege to write the make-up examination, and a grade of '0' will be assigned for the missed examination.**

If a final examination is missed in December, the make-up examination will be scheduled during the Winter term mid-term examination period in February.

If a final examination is missed in April, the make-up examination will be scheduled during the Summer term mid-term examination period in June.

If a final examination is missed in August, the make-up examination will be scheduled during the Fall term mid-term examination period in October.

If a student is eligible to write a make-up exam in a Pharmacy course, a maximum of two opportunities will be offered, unless otherwise specified in the course syllabus. If the make-up exams are also missed, the next opportunity to write such an exam will be during a specific designated exam period.

In accordance with Faculty policy, if the petition is not granted, or if there is no petition, a grade of zero will be assigned. Acceptable valid reasons in the past have included personal illness or illness or death of a close family member. Documentation from a physician or member of clergy, or other appropriate professional person familiar with the circumstances, will be required to substantiate the reason. As noted above, a decision on the validity of the reason will be determined by the Program Coordinator and the Director, PharmD for Pharmacists Program. More complex situations may be referred to the Committee on Academic Standing for decision.

If the petition is granted the faculty member will be expected to proceed with the appropriate action according to the course policy. Course policy must conform to the University Assessment and Grading Practices Policy.

When any examination or assignment is missed, and where a petition deemed valid by the Faculty is presented, and the sum of all other examinations and evaluations in the course is equal to or greater than 20% of the total grade:

- i. the student will be given a make-up examination (written or oral at the instructor's discretion), or another assignment comparable to the missed evaluation, or
- ii. in a course with a cumulative final examination, the weight of the final examination will be increased to equal the value of the missed examination, plus the original value of the final.

Note that in accordance with the University Assessment and Grading Practices Policy, no one evaluation should have a value of more than 80% of the total grade. Exemptions must be approved by the Committee on Academic Standing prior to the commencement of a course.

If the sum of other examinations and assignments in the course is less than 20% of the total grade the student must be given a make-up examination or other assignment comparable to the value of the missed evaluation.

The examination or assignment option chosen by or available to the instructor must be conveyed to the students by the second lecture period in a course, with the method of evaluation, and filed with the PharmD for Pharmacists Program.

## Petition Procedures

A petition is a written request for special consideration, because of illness or other circumstances, related to non-compliance with course requirements or impact on academic performance. Petitions are submitted to the Program Coordinator, in the requisite form, and are considered in confidence by, or on behalf of, the Committee on Academic Standing. Petitions are presented to the Board of Examiners only in the event that a student's satisfactory performance in the program is in jeopardy.

If a petition is submitted by the appropriate deadline, with a clear explanation of the circumstances, and any required documentation is provided, the request will be given prompt consideration. Petition decisions are based on the validity of the request. Approval is not automatic and should not be taken for granted. If students fail to observe deadlines or to organize their academic priorities, or if they have been negligent about their responsibilities, then special consideration will not be warranted. The petition process is not a means to salvage courses and/or the academic record.

A petition should be submitted only when there are circumstances which are not only beyond the student's control, but which also could not reasonably have been anticipated or overcome, and which have affected the student's studies or impacted academic performance.

Relevant and appropriate documentation must be provided at the time the petition is submitted. In the absence of this documentation, the petition is not valid and a grade of '0' will be assigned for the missed evaluation. In the case of illness, a [University of Toronto Verification of Student Illness or Injury](#) form must be provided. Note that the physician's report must establish that the student was examined and diagnosed at the time of the illness, not after the fact. A statement that merely confirms a report of illness made by the student for documentation by the physician will not be sufficient; rather, the medical report must show:

- that the student was examined at the time of illness;
- the degree of incapacitation on academic functioning;
- the duration of the incapacitation.

Petitions for missed mid-term examinations, assignments or other course requirements must be submitted within seven calendar days of the missed examination, assignment or course requirement.

For examinations missed during the regularly scheduled examination periods (December, April and August), petitions must be submitted by the end of the examination period. Supporting documentation should follow in a timely manner if unavailable at the end of the examination period, with an absolute deadline of the relevant Board of Examiners meeting. Information about this date may be obtained from the Program Coordinator.

A "general" petition with supporting documentation may be submitted if students believe there were extenuating circumstances affecting their academic performance. The deadline to submit "general" petitions is seven calendar days after the release of the final grades.

## Checking of Marks

Students may request to have a final examination re-read for a fee of \$36. (Students should note that failed examinations must be re-read by the Course Coordinator before the marks are reported.)

Requests for re-reads of final examinations must be submitted, in writing, to the Program Coordinator as follows:

- For December examinations: by the end of March
- For April examinations: by the end of September
- For August examinations: by the end of November
- For other examinations, such as mid-terms, make-ups, etc., requests for re-reads must be made to the Course Coordinator responsible for the examination within 4 months of the date the examination was written.

A re-reading or recalculation may lead to a lowering, or a raising, or no change of the mark. If the mark is raised, a refund of the fee will be made to the student. For computer-marked exams where the answer sheets have been incorrectly or inadequately completed, a request for a re-read, with payment of the appropriate fee, will be accepted. However, should the student's grade increase and should the problem or error be that of the student, then no refund will be given.

Students who would like to see any examination may do so in the presence of program staff. Viewings are conducted onsite at the St. George Campus of the University of Toronto only. For final examinations, if a student requests more than one viewing of any examination, a fee of \$10 will be levied for the second and any subsequent viewing. Requests for the second and any subsequent viewing of the same examination must be made in writing and submitted to the Program Coordinator along with the fee payment. The deadlines for submitting requests to view examinations are the same as the deadlines for submitting requests for re-reads of examinations (see above). The student may view only his/her own examination. Examination papers will not be reproduced for students.

## Accreditation Status

The PharmD for Pharmacists program is accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) until December 2023. In order to graduate from an accredited program, students must complete all program requirements and be eligible for November 2023 convocation. For more information on CCAPP, visit their website at <http://ccapp-accredit.ca/>.

For more information on the PharmD for Pharmacists program, visit the website at <https://www.pharmacy.utoronto.ca/programs/pharmd-pharmacists>

# Combined PharmD-MBA Program

As the complexity of healthcare delivery increases, there is a growing need for clinicians (like pharmacists) who also have management training and expertise. Pharmacists with MBAs are found in both the public and private sectors, working in government, academia, hospitals, pharmaceutical companies, consulting companies, and in their own private practices. The additional knowledge and skills provided by an MBA can provide individuals with unique advantages across different sectors.

## Admission

Consideration for admission to the Combined PharmD-MBA program will be given to students who:

- i. Are enrolled in the full-time PharmD program;
- ii. Have completed at least an appropriate bachelor's level degree (e.g., Bachelor of Science) from a recognized institution prior to enrolment in the PharmD program;
- iii. Have successfully completed all Year 2 PharmD program requirements and are in good academic standing;
- iv. Meet the admission requirements of the 2-year MBA program. Admission to the MBA program is entirely at the discretion of the Rotman School of Management and will be based on the standards and requirements of that School as indicated on their website at:  
<https://www.rotman.utoronto.ca/Degrees/MastersPrograms/JointDegrees/PharmDMBA>.

## Program Outline

### Year 1:

Students complete all requirements of the First Year of the PharmD program.

Students interested in the Combined PharmD-MBA program are encouraged to familiarize themselves with admission requirements to the Rotman School of Management during Year 1 of the PharmD Program. Completion of the Graduate Management Admission Test (GMAT) or equivalent prior to the start of Year 2 of the PharmD program is recommended, to facilitate the application process.

### Year 2:

Students complete all requirements of the Second Year of the PharmD program.

In order to qualify for the combined PharmD-MBA program, students must receive a letter of acceptance from the Rotman School of Management by March 1 of Year 2 in the PharmD program, meaning students must meet Rotman's Cycle 2 Admission Deadline (see <https://www.rotman.utoronto.ca/Degrees/MastersPrograms/JointDegrees/PharmDMBA> for further details). Once a letter of acceptance has been received, the student will defer admission to the MBA program for one year, in order to complete PharmD degree requirements.

Students' registration in ACORN is transferred from the PharmD program to the Combined PharmD-MBA program effective the summer session immediately following the fall/winter session of Year 2. During this summer session, students complete [PHM251H1](#) Early Practice Experience 2 in May/June and then complete [PHM348H1](#) Intermediate Pharmacy Practice Experience in July/August.

### Year 3:

Students complete the requirements of the fall term of the Third Year of the PharmD program (i.e., 5 required courses and 1 elective course). In the winter term of Year 3, students complete [PHM400H1](#) Transition to Advanced Pharmacy Practice Experience prior to commencing their Advanced Pharmacy Practice Experience (APPE) rotations. Students complete three five-week APPE rotations during the winter term of Year 3. They also complete three five-week APPE rotations during the summer session immediately following Year 3.

**Year 4:**

Students are registered in the PharmD program for the fall term of Year 4, and complete a self-directed course in pharmacy, PHM488H1 Independent Study Course in Social and Administrative Pharmacy.

Students are also registered in the MBA program (for both the fall and winter terms) and complete all requirements of the First Year of the MBA program.

Please note that the fall term courses of the First Year of the MBA program fulfill the selective/elective requirement of the winter term of the Third Year of the PharmD program. Consequently, the requirements of the PharmD degree are completed by the end of the fall term of Year 4. The PharmD degree is conferred in June, immediately following Year 4. Students will then be eligible to take the Pharmacy Examining Board of Canada (PEBC) Qualifying Examinations Parts I and II as part of the process of registration as a pharmacist with the Ontario College of Pharmacists.

**Year 5:**

Students complete all requirements of the Second Year of the MBA program. The MBA degree is conferred in June, immediately following Year 5.

The program requirements for the MBA component of the Combined PharmD-MBA program can be found on the Rotman School of Management's website at:

<https://www.rotman.utoronto.ca/Degrees/MastersPrograms/JointDegrees/PharmDMBA>

Following is a summary of the "registration path" of students enrolled in the Combined PharmD-MBA program.

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Fall Term	Full-time PharmD Program	Full-time PharmD Program	Full-time PharmD Program	Full-time PharmD Program  Full-time MBA Program	Full-time MBA Program
Winter Term	Full-time PharmD Program	Full-time PharmD Program	<u>PHM400H1</u> Transition to APPE  APPE Rotations (15 weeks)	Full-time MBA Program	Full-time MBA Program
Summer Term	<u>PHM151H1</u> EPE-1	May/June: <u>PHM251H1</u> EPE-2  July/August: <u>PHM348H1</u> IPPE	APPE Rotations (15 weeks)	PharmD degree conferred	MBA degree conferred

## PharmD-MBA Program Courses

### **PHM348H1 Intermediate Pharmacy Practice Experience**

This direct patient care rotation is designed to build and enhance students' knowledge, skills and attitudes in the provision of direct patient care in institutional, community or ambulatory pharmacy practice. The rotation will build on knowledge, skills and behaviours acquired in academic courses and earlier experiential rotations throughout the curriculum. This rotation will occur in sites serving a variety of health care needs, including, for example, acute care, rehabilitation, pediatric, geriatric, chronic care and specialty populations. Care may be provided in any patient care setting such as a hospital, family health team, community pharmacy, ambulatory clinic or other types of patient care practices, with an emphasis on establishing a context for the provision of pharmaceutical care in a clinical setting. Students will participate in, and take responsibility for, direct patient care activities including: patient assessment to identify and prioritize drug therapy problems, development of care plans that address desired patient outcomes, and patient monitoring including physical and laboratory assessment, and where feasible, provision of follow-up evaluation and appropriate documentation. Students will communicate with patients and care givers to monitor patient parameters, determine and

assess target outcomes, and provide education. Students will work closely with members of the health care team in providing collaborative care, with regular communication with team members to share and document their assessment of the patient's medication related needs and recommendations to address those needs.

### **PHM400H1 Transition to Advanced Pharmacy Practice Experience**

The Transition to Advanced Pharmacy Practice Experience (APPE) course is designed to strengthen and integrate students' knowledge, skills, and attitudes in preparation for, and make the transition to, APPE rotations. This course, via lectures, workshops, case-based role play activities and related assignments and assessments, will enable students to review, build on, consolidate and apply previous knowledge, skills and behaviours acquired throughout the curriculum in academic courses and in earlier experiential rotations in the areas of patient care provision, communication, collaboration, management, advocacy, scholarship, and professionalism. (CanMEDS, 2005, AFPC, 2010). The goal of this course is to engender students' practical skills and strategies to help prepare them for the role of advanced pharmacy practice students.

### **PHM488H1 Independent Study Course in Social and Administrative Pharmacy**

This course is only available to students enrolled in the Combined PharmD-MBA program and is intended to provide a pharmacy- and health-related context for compulsory courses taken in the first year of the MBA program. Students will work with a selected supervisor to identify a topic of interest related to social and administrative pharmacy and relevant to management sciences. A minimum of three written assignments will be required, based on readings and learning activities assigned by the supervisor. Students will work with the course coordinator prior to the start of term to determine a topic area of interest (e.g., organizational behaviour, economics, operations, marketing, etc.). Based on these interests, the Coordinator of the Combined PharmD-MBA program will work with the student to identify a faculty supervisor to work with the student in development of a program of study customized to that student's unique interests. The objective of this course is to facilitate application of core management courses to pharmacy and health care specific situations, and to support students in development of competencies related to social and administrative pharmacy.

## **Policies and Procedures**

The policies and procedures contained in the Faculty Calendar for the Leslie Dan Faculty of Pharmacy are applicable for the PharmD component of the Combined PharmD-MBA program. However, students should be aware that any delay in their normal progress in the PharmD component will likely impact their eligibility to proceed to the MBA component. In this case, students will be permitted to return to the four-year PharmD program.

Requirements to graduate with honours:

- a. a cumulative Grade Point Average of 3.50 or higher in the Doctor of Pharmacy program;
- b. a grade of 'Honours' in at least 2.0 of the 3.5 Intermediate and Advanced Pharmacy Practice Experience full-course equivalents, and a grade on 'Pass' in the remaining IPPE/APPE courses; and
- c. a passing grade in all courses completed in the first term of the MBA program.

The policies and procedures of the Rotman School of Management are applicable to the MBA component of the Combined PharmD-MBA program.

## **Financial Assistance**

The Leslie Dan Faculty of Pharmacy provides a bursary for selected students enrolled in the PharmD component of the Combined PharmD-MBA program who have:

- Demonstrated commitment to management and leadership in pharmacy;
- A strong academic background, with a cumulative GPA in the pharmacy program of at least 2.0;
- Financial need to support their post-graduate studies.

Information about the Combined PharmD-MBA Bursary will be provided to students at the start of their registration in Year 4 of the PharmD program. This will include information on the application process and deadline. Please note that funds are limited and it is not guaranteed that all students who submit an application will receive a bursary.

Once enrolled in the MBA component, students should consult with the Rotman School of Management for potential sources of financial assistance.

# Residency Programs

## Institutional Pharmacy Residency Programs

An Institutional (historically termed Hospital) Pharmacy Residency Program is a 12-month postgraduate learning experience involving structured rotations in various areas of institutional pharmacy services (inpatient hospital or ambulatory care), such as clinical practice, education, project management or research, and administration/leadership. There are two types of Institutional Pharmacy Residency Programs: Year 1 and Year 2 programs. The goal of Year 1 residency programs is to prepare pharmacists for challenging and innovative pharmacy practice careers, while the goal of Year 2 residency programs is to prepare graduates for advanced practice in a defined area of practice. Year 2 programs are typically done after a Year 1 program has been completed.

Institutional Pharmacy Residency graduates are an important source of highly qualified pharmacists trained in hospital or ambulatory care practice. Each Institutional Pharmacy Residency Program offered in Ontario partners with either the Leslie Dan Faculty of Pharmacy, University of Toronto (UT) or the School of Pharmacy, University of Waterloo (UW) to provide an academic linkage. Applicants from any Canadian pharmacy degree program may apply. Applications are coordinated nationally through the [Canadian Society of Hospital Pharmacists](#). Both Year 1 and Year 2 Programs undergo formal accreditation through the [Canadian Pharmacy Residency Board](#).

The following institutions provide hospital-based Residency Programs (Year 1) in Ontario:

Centre for Addiction and Mental Health Toronto, Ontario (UT)	St. Joseph's Healthcare Hamilton, Ontario (UT)
Hamilton Health Sciences Corporation Hamilton, Ontario (UW)	St. Michael's Hospital, part of Unity Health Toronto Toronto, Ontario (UT)
The Hospital for Sick Children Toronto, Ontario (UT)	Sunnybrook Health Sciences Centre Toronto, Ontario (UT)
Kingston General Hospital Kingston, Ontario (UT)	Trillium Health Partners Mississauga, Ontario (UT)
London Health Sciences Centre London, Ontario (UW)	University Health Network Toronto, Ontario (UT)
Mount Sinai Hospital, part of Sinai Health System Toronto, Ontario (UT)	William Osler Health System Brampton and Toronto, Ontario (UT)
The Ottawa Hospital and Montfort Hospital Ottawa, Ontario (UT)	Windsor Regional Hospital Windsor, Ontario (UW)

Ambulatory Care Institutional Residency Programs (Year 1) prepare residents with the knowledge and skills necessary to establish a collaborative practice in ambulatory care (direct patient care rotations in a variety of practice areas, drug information, leadership, teaching, and project management/research).

Ambulatory Care Institutional Residency Programs in Ontario are offered at:

Sunnybrook Health Sciences Centre Toronto, Ontario (UT)	Women's College Hospital Toronto, Ontario (UT)
University Health Network Toronto, Ontario (UT)	University of Waterloo/Centre for Family Medicine Health Team Waterloo, Ontario (UW)

Institutional Pharmacy Residency Programs (Year 2) are designed to prepare graduates for an advanced practice in a defined area of practice (hospital-based or ambulatory care). The following institutions in Ontario offer a Year 2 residency program:

Sunnybrook Health Sciences Centre - Antimicrobial Stewardship Toronto, Ontario (UT)	University Health Network* - HIV Toronto, Ontario (UT)
Sunnybrook Health Sciences Centre - Thromboembolism Toronto, Ontario (UT)	

\*This position is a joint program of UHN and McGill University Health Centre, in conjunction with UT.

## Industrial Pharmacy Residency Programs

The Industrial Pharmacy Residency Program is administered by the Leslie Dan Faculty of Pharmacy, University of Toronto, in collaboration with participating Pharmaceutical Companies. The goal of the 12-month Residency is to educate Pharmacy degree program graduates in a variety of roles and responsibilities within the pharmaceutical industry. Individual company programs will provide focused experience in specialty areas, such as: regulatory affairs, medical affairs, market access, compliance, marketing and government policy. A residency completion certificate is awarded jointly by the pharmaceutical company and the Faculty. The following companies currently offer Industrial Pharmacy Residency Programs:

Abbott Laboratories Markham, Ontario	GlaxoSmithKline Inc. Mississauga, Ontario
Amgen Canada Mississauga, Ontario	Hoffmann-La Roche Ltd Mississauga, Ontario
Bayer Canada Mississauga, Ontario	Leo Pharma Thornhill, Ontario
Biogen Idec Canada Inc. Mississauga, Ontario	Novo Nordisk Mississauga, Ontario
Eisai Canada Mississauga, Ontario	Sanofi Genzyme Mississauga, Ontario
Eli Lilly Canada Inc. Toronto, Ontario	Sanofi Pasteur Toronto, Ontario