

# Information for High School Students and Guidance Counsellors

## Choosing a Career in Pharmacy

Pharmacists are health care professionals who play a pivotal role in as medication therapy experts, providing convenient, accessible and high quality patient care. As an integral part of the health care team they work with patients, physicians, nurses and others to ensure medications are safe and beneficial. Pharmacists graduate with a thorough knowledge of prescription and non-prescription medications, and the skills to manage all aspects of handling medications, and the understanding of drug interactions and side-effects. Today's pharmacists are able to manage a wide range of medical conditions such as diabetes, asthma and high blood pressure; they can give flu shots, conduct medication reviews and assess minor ailments. You may wish to view information provided by the Canadian Pharmacists Association at <http://www.pharmacists.ca/index.cfm/pharmacy-in-canada/>

If you would like to contribute to improving the health care of others, are detailed oriented, a good problem solver and good communicator, enjoy working with people, have an excellent grasp of basic sciences and are committed to life-long learning, you may want to consider a career in Pharmacy. To become a licensed pharmacist in Canada you are required to successfully complete an accredited university level entry-to-practice Pharmacy degree program, followed by national Board exams, as well as successful completion of the requirements of the provincial licensing body of the province in which you wish to practice.

The professional entry-to-practice degree program offered at the University of Toronto is a Doctor of Pharmacy (PharmD) program and has replaced the BSc in Pharmacy (BScPhm) program. The PharmD program is 4 years in length (3 years academic courses plus one year experiential) and follows two years of initial university study. All other Canadian universities that offered the BScPhm degree in the past are now offering the PharmD entry-to-practice degree.

## Learning about Pharmacy

While pharmacy experience is not an admission requirement, and no admissions preference is given to those who have pharmacy volunteer or work exposure, the Faculty recommends that all applicants learn about pharmacy practice to ensure that they have a basic understanding of the profession and an appreciation of the role of pharmacists in caring directly for individual patients and the knowledge, skills, values and attitudes this role demands. While there are many ways you can learn about the profession you may want to consider compiling a list of Pharmacy career related questions and then contacting, and arranging a meeting with, a pharmacist in your area. Most pharmacists are happy to meet with prospective applicants to answer questions about the profession. You may also visit the Canadian Pharmacists Association as part of your web-based exploration.

## Choosing High School Courses

To ensure you will be meeting all admission requirements and pre-requisite requirements for Pharmacy and the relevant first year university courses, you should include English, Physics, Biology, Chemistry, and Calculus (MCV4U Calculus and Vectors) as well as a second Math (MHF4U Advanced Functions) in your Grade 12U program. University level Biology, Chemistry and Calculus have Grade 12U (or equivalent) pre-requisites. The second math is a pre-requisite for the first year Calculus course at many universities including the University of Toronto.

## Secondary School Grades

The PharmD program is a 'second-entry' program, admitting applicants from the university level rather than the high school level. As a result, overall high school averages are not considered when applying for admission. Although secondary school grades are not used in the calculation of any averages for admission consideration you may, however, use a Grade12U credit (or equivalent from other educational systems) to meet the Physics subject requirement. All other subject requirements must be met at the university level.

## 'PharmD' vs. PhD, MSc and BSc

The PharmD (Doctor of Pharmacy) is an undergraduate program and is a professional designation. It requires only 2 years of university study for admission, whereas PhD (Doctor of Philosophy) programs are graduate research

programs which typically require at least 6 years of university level study, including a 4 year BSc and a 2 year MSc program, for entry. Graduate degree programs (MSc and PhD) will not qualify you for licensure as a pharmacist – they are geared to candidates who are interested in research. Remember, it is the PharmD designation (or BScPhm at some other Canadian universities) which you will need to become licensed as a pharmacist in Canada.

It is not necessary to complete a degree program to meet the academic admission requirements for our PharmD program – most students are able to meet the academic requirements within only 2 years of university level study! Once admitted to our PharmD program it will take 4 years to complete the program regardless of prior education or work experience.

There are various Pharmacy related BSc degree programs (for example, Pharmacology or Pharmaceutical Chemistry) but these general science programs alone do not qualify you for licensure as a Pharmacist even though there may be some overlap in course material between the programs. There is no advantage, as part of the admission process, to students who choose programs with some related material (such as those mentioned above).

It is important to note that Pharmacy Technician/Assistant programs, which are offered at the Ontario community college level and which are typically only 1 to 2 years in length, are not considered for admission or transfer credit purposes.

### **Choosing a University and Program of Study**

For purposes of meeting the academic admission requirements to our PharmD program you may apply to any recognized university, as long as the courses offered are comparable to our published [pre-requisite courses](#).

When you apply to a university directly from high school you will likely be applying to a BSc (Bachelor of Science) degree program. The stream/program of study and the 'subject of major interest' you choose to study is not relevant provided it permits flexibility in choosing courses. Most students apply to a Faculty of Arts and Science (or at some universities it may be called Faculty of Science) for a Physical or Life Science or a general science program. Physical and Life Science programs include, but are not limited to, subjects/areas of study such as Chemistry, Biology, Biochemistry, Microbiology, Pharmacology and Toxicology. Provided you apply to any general science program you should be able to register for all required subjects (including at least one Humanities/Social Science).

Students pursuing a Humanities/Social Science stream can also meet the requirements, provided appropriate high school pre-requisites in sciences/math have been completed and your university allows you to incorporate the required math and science subjects into your timetable. If you choose a very specialized program – for example, another professional program such as Engineering or Nursing – you likely will not have the flexibility to choose courses that meet our academic requirements.

### **Application Process for Pharmacy**

The PharmD program is a 'second-entry' professional program which means that we admit applicants from the university level rather than the high school level. Candidates normally become eligible to apply to our PharmD program during their second year of university. It is not necessary to complete a degree prior to applying; however, you may choose to wait and apply after your third or fourth year of university – or even after completing a graduate degree (e.g. Master's or PhD); it's up to you to apply at whatever point you feel ready. Some universities, including UofT, offer Masters and PhD programs which PharmD graduates may decide to apply to.

The online applications normally become available by mid-September of each year for the following year's admission. The online application is accessible directly from the Pharmacy website (note that we are not part of the OUAC application system). If you apply during your second year of university you will likely be submitting your application before you have completed all of the required subjects. Provided you anticipate that you will be completing all required subjects by April of the year for which you are applying (and assuming you will also be meeting other admissions criteria such as the PCAT) you will be eligible for admission consideration if you have submitted your online application by the deadline (which usually occurs early January).

Some universities may offer conditional acceptance or pre-Pharmacy programs requiring that you attend that particular university for your first years at university. For admission to the University of Toronto's Pharmacy program you are free to attend the university of your choice in preparation for the study of Pharmacy – you may choose to

attend a university which is close to home if that is more convenient or desirable for you. Just be sure to carefully plan your timetable and choose suitable courses from among the wide range of courses offered at the many universities. If you are attending an Ontario university (or University of British Columbia, or McGill University), [click here](#) to access the link to the table listing examples of acceptable prerequisite courses. If the university you are attending is not listed, and you are unsure of your course selection after reviewing the published information, you may contact our Admissions Office for guidance