

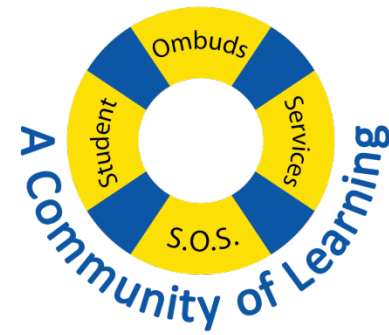


S.O.S. PRESENTS:



Pharmacy School Seminar

* Slides will be posted on
bethune.yorku.ca/events



Who Are We

- Tina Ngo
 - 3rd Year Chemistry Major
 - SOS Peer Tutor and Mentor
- Joo-Young Lee
 - 2nd Year Biomedical Sciences Major
 - SOS Peer Mentor



Who Are We

- Sandra Bjelajac Mejia
 - U of T Pharmacy Admissions Director
- Heidi Debond
 - U of T PharmD Admissions Assistant



Agenda

- Canadian Pharmacy Schools
- PCAT
- **Focus on requirements for Ontario schools:**
 - University of Waterloo
 - University of Toronto



Canadian Pharmacy Schools

- **Newfoundland**
 - Memorial University of Newfoundland
- **Nova Scotia****
 - Dalhousie University
- **Quebec**
(FRENCH PROFICIENCY TEST NECESSARY)
 - Université de Montréal
 - Université Laval

****Preference to province residents or requires higher GPA for out of province applicants**



Canadian Pharmacy Schools

- **Ontario**
 - University of Toronto (PCAT)
 - University of Waterloo
- **Manitoba****
 - University of Manitoba
- **Saskatchewan****
 - University of Saskatchewan

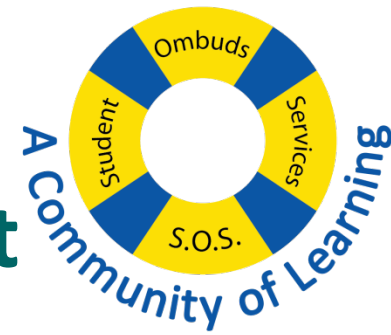
**Preference to province residents or requires higher GPA for out of province applicants



Canadian Pharmacy Schools

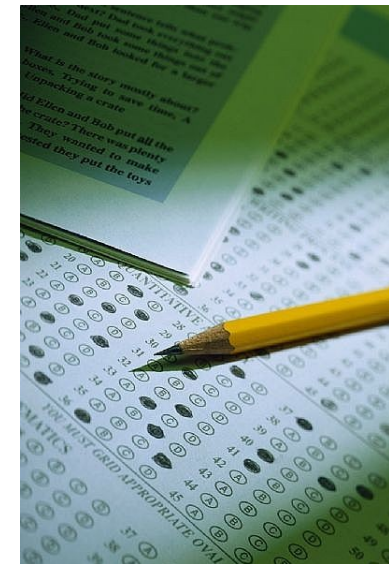
- **Alberta****
 - University of Alberta
- **British Columbia****
 - University of British Columbia (PCAT)

**Preference to province residents or requires higher GPA for out of province applicants



Pharmacy College Admission Test (PCAT)

- Required for University of Toronto
- 4 hours: 232 MC and 1 writing topic
- Registration Fee: \$199.00
- Register online at:
<http://www.pearsonvue.com/pcat/>



For more information visit: www.pcatweb.info



Pharmacy College Admission Test (PCAT)

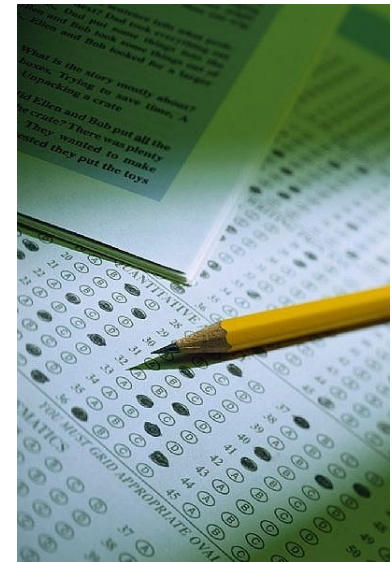
- Held for four testing windows
 - July, September, October/November, and January
 - October 26—30 & November 2—6, 2014
 - Can still register, late fees apply after Oct 21 (\$49.00)
 - January 5—6 2015
 - Can register, late fees apply after Dec 28 (\$49.00)
 - First come, first served basis

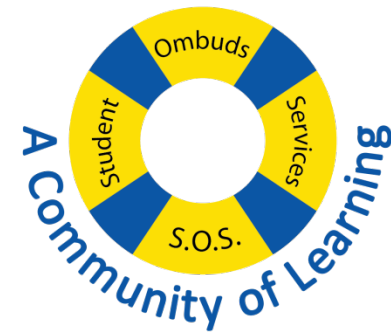
For more information visit: www.pcatweb.info



PCAT – Format

- 6 sections
 1. Writing
 2. Verbal Ability
 3. Biology
 4. Chemistry
 5. Reading Comprehension
 6. Quantitative Ability
- Must achieve certain minimum standard in each section and overall to be considered for admission into University of Toronto





PCAT – Writing

- **Writing**
 - 30 minutes to suggest a solution in essay format to a given problem and problem solving (1 prompt)
 - Evaluated on convention of language
 - i.e. Discuss a solution to the problem of developing affordable alternatives to fossil fuels.

<http://pcatweb.info/downloads/about/pcatestblueprintandsampleitems.pdf>



PCAT – Verbal Ability

- **Verbal Ability (25 minutes, 40 questions)**
 - Analogies
 - Sentence Completion
 - i.e. ACQUIESCENT : COMPLIANT ::
AUDACIOUS :
(“Acquiescent” is to “Compliant” as “Audacious” is to...)
 - a. Brazen
 - b. Timid
 - c. Stoic
 - d. Peaceful



PCAT – Biology

- **Biology (35 minutes, 48 questions)**
 - General Biology
 - Microbiology
 - Human Anatomy and Physiology
 - Which sphincter in the G.I. Tract controls movement of chyme from the stomach into the small intestine?
 - a. Cardiac
 - b. Pyloric
 - c. Ileocecal
 - d. Anal



PCAT – Chemistry

- **Chemistry (35 minutes, 48 questions)**
 - General Chemistry
 - Organic Chemistry
 - Basic Biochemistry Processes
 - What is the product of ethyne with water and H_2SO_4 in HgSO_4 ?
 - a. CH_2CH_2
 - b. CH_3CHO
 - c. CH_3CH_3
 - d. $\text{CH}_3\text{CH}_2\text{OH}$



PCAT – Reading Comprehension

- **Reading Comprehension (50 minutes, 48 questions)**
 - 6 passages
 - Answer 48 multiple choice questions based on the passages:
 - Comprehension
 - Analysis
 - Evaluation



PCAT – Quantitative Ability

- **Quantitative Ability (45 minutes, 48 questions)**

- Basic Math
- Algebra
- Probability & Statistics
- Pre-calculus
- Calculus

- $\ln e^{2x+1} = 9, x = ?$

- **Note: no calculators**



PCAT - Scoring

- Writing:
 - Level 1-6
- Verbal ability, biology, chemistry, reading comprehension, quantitative, composite:
 - Scaled score: 200 – 600, 90th percentile = 430 e.g.
 - Percentile ranks: 1 – 99



University of Waterloo

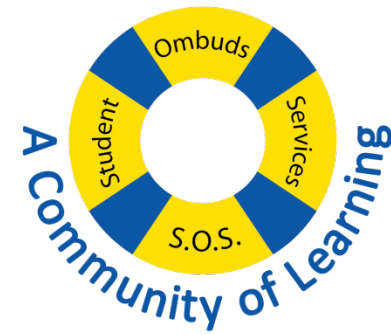




University of Waterloo

Doctorate of Pharmacy (PharmD)

- Admits **120 students** each January
 - 600 applicants
- **Four year** professional entry--to--practice program:
 - 8 academic terms
 - 3 co--op work terms



University of Waterloo

Example Timetable Fall 2015 Schedule

Rx2018 - 2A

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:30					
9:00					
9:30	PHARM 220/221 LEC 8:30-11:20 PHR 1004 IPFC 1/2 (Feng Chang/Brett Barrett)	PHARM 227 LEC 8:30-10:20 PHR 1004 Health Systems in Society (Wasem Alsabbagh)	PHARM 228 LAB (001) 8:30-10:20 PHR 3026 Professional Practice 3 (Cynthia Richard)	Meetings	PHARM 220/221 LEC/TUT 8:30-10:20 PHR 1004 IPFC 1/2 (Feng Chang/Brett Barrett)
10:00					
10:30					
11:00					
11:30			PHARM 228 LAB (002) 11:00-12:50 PHR 3026 Professional Practice 3 (Cynthia Richard)	PHARM 220/221 LEC 10:30-12:20 PHR 1004 IPFC 1/2 (Feng Chang/Brett Barrett)	
12:00					
12:30					
1:00	PHARM 224 TUT 12:30-1:50 PHR 1004 Pharmacokinetic Fundamentals (Andrea Edginton)	PHARM 220/221 LEC 11:30-2:20 PHR 1004 IPFC 1/2 (Feng Chang/Brett Barrett)			
1:30					
2:00					
2:30	PHARM 232 LEC/LAB* 2:30-3:20 PHR 1004/PHR 2019 Medical Microbiology (Olla Wasfi)		PHARM 228 LAB (003) 1:30-3:20 Professional Practice 3 PHR 3026 (Cynthia Richard)		
3:00					
3:30	PHARM 232 LEC/LAB* 3:30-4:20 PHR 1004/PHR 2019 Medical Microbiology (Olla Wasfi)			PHARM 224 LEC 2:30-4:50 PHR 1004 Pharmacokinetics Fundamentals (Andrea Edginton)	PHARM 220/221 TUT IPFC 1/2 2:30-4:20 PHR 1008/1012/2024 (Feng Chang/Brett Barrett)
4:00					
4:30	PHARM 232 LAB* 4:30-5:20 PHR 2019*Medical Microbiology (Olla Wasfi)				
5:00					
5:30					
6:00					



University of Waterloo

Curriculum

<i>Year</i>	<i>Term</i>		<i>Date</i>
Year 1	Winter	Academic (1A)	January–April 2017
	Spring	Academic (1B)	May–August 2017
	Fall	Academic (2A)	September–December 2017
Year 2	Winter	Work Term 1	January–April 2018
	Spring	Academic (2B)	May–August 2018
	Fall	Work Term 2	September–December 2018
Year 3	Winter	Academic (3A)	January–April 2019
	Spring	Work Term 3	May–August 2019
	Fall	Academic (3B)	September–December 2019
Year 4	Winter	Academic (4A)	January–April 2020
	Spring	Academic (4B)	May–August 2020



University of Waterloo

Academic Requirements

- **Minimum University Average of 75%** (3.3/4.0 or 7/9.0 GPA)
- **Full course load**—30 credits per year (preferred)
- PCAT not required
- Must pass interview



Prerequisite Courses (University of Waterloo)

- **Biology**
 - Introductory (6 credits):
 - SC/BIOL 1000 and SC/BIOL 1001
 - Genetics (3 credits): SC/BIOL 2040
 - Microbiology (3 credits): SC/BIOL 2905 or 3150



Prerequisite Courses (cont.) (University of Waterloo)

- **Chemistry**

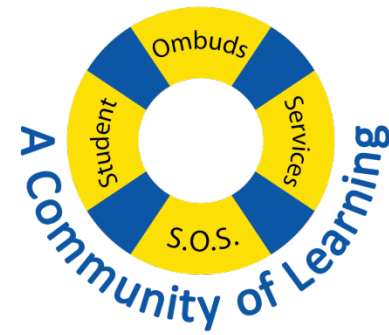
- General Chemistry with lab (6 credits):
 - SC/CHEM 1000 and SC/CHEM 1001
- Biochemistry:
 - SC/BIOL/BCHM 2020 (3.0) and 2021 (3.0)
- Organic Chemistry with lab (6 credits):
 - SC/CHEM 2020 (3.0) and SC/CHEM 2021 (3.0)



Prerequisite Courses (cont.) (University of Waterloo)

- **English**

- Any 3 credit English Course:
 - NOT EN 2020, 2140, 3177
 - To confirm course equivalency, email: pharmacy@uwaterloo.ca



Prerequisite Courses (cont.) (University of Waterloo)

- **Math**

- Mathematics (6 credits):
 - SC/MATH 1505 (6.0)
 - Or SC/MATH 1013 (3.0) and SC/MATH 1014 (3.0)
- Statistics (3 credits):
 - SC/MATH 1131 3.0 or 2560 3.0
 - Non-math department: SC/BIOL 2060 3.0 or HH/PSYC 2021 3.0 or HH/KINE 2050 3.0



Prerequisite Courses (cont.) (University of Waterloo)

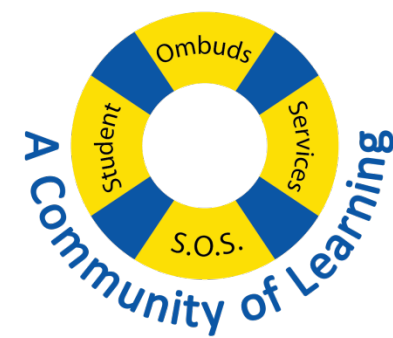
- **Humanities or Social Sciences**
 - 12 credits in any of the following (maximum 6 per subject):
 - Anthropology
 - Languages
 - Drama
 - Literature
 - Fine Arts
 - Economics
 - History
 - Sociology
 - Psychology
 - Political Science
 - Philosophy
 - Geography
 - Etc...



University of Waterloo

Application timeline - January 2017

<i>Date</i>	<i>Event</i>
August 10, 2015	<p>Applications open - click APPLY to access the online application.</p> <p>Your application will be acknowledged by email and you will be sent specific information on completing your online Admission Information Form (AIF) and the Reference Letter Form. It may take up to two weeks to receive this email.</p>
October 4-8, 2015	<p>OUAC shutdown</p> <p>Applications unavailable during this time. All applications that have been started but not submitted prior to October 4 will be deleted. The application system will be available once again on Oct 9.</p>
December 24, 2015 - January 1, 2016	<p>Christmas break</p> <p>Although we welcome your application during the Christmas break, acknowledgement emails will resume the first week of 2016.</p>



University of Waterloo

January 4, 2016	Deadline to submit the January 2017 application and pay the application fee (midnight EST).
January 25, 2016	Deadline to submit AIF for those that applied.
February 8, 2016	<p>Deadline to submit the following items (details will be provided in the acknowledgement email you will receive after you apply to the program):</p> <ol style="list-style-type: none"> 1. Interim University transcript(s) 2. Reference Letter Form 3. Confirmation of English Language Requirements (if applicable)
April 7, 2016	Invitations for Pharmacy Admission Interviews sent by email. Those not invited to an interview will also be notified by email.
April 14, 2016	Deadline to confirm attendance for your interview. If you fail to respond by this date, your interview time may be assigned to another applicant.



University of Waterloo

April 29 - May 1, 2016	Pharmacy Admission Interviews and Fundamental Skills Assessment (for selected candidates).
June 3, 2016	Deadline to submit University transcripts with final Winter 2016 grades.
June 9, 2016	Admission decisions communicated to all interviewed applicants.
June 23, 2016	Deadline to accept Offer of Admission to Pharmacy.
January 2017	Lectures begin



University of Waterloo

Non--Academic Requirements

- **Pharmacy Admission Information Form (AIF)**
 - Essay about you and your involvement in activities
- **Reference**
 - Preferably from a pharmacist, or a physician or nurse (no relatives)



University of Waterloo

Non--Academic Requirements

- **Interview**
 - Conducted by faculty members and pharmacists
- **Fundamental Skills Assessment**
 - Includes a Reading Comprehension, Writing and Basic Mathematic Skills Test (under a time limit)
 - Conducted on the same day as your interview

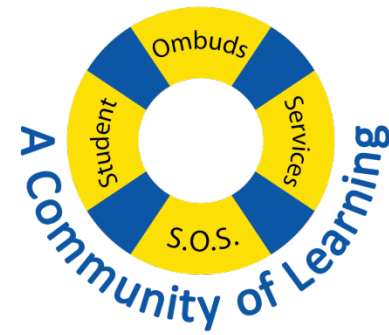


University of Waterloo

Co-op Program

- Community: retail pharmacy or family health clinic
- Institutional: hospitals, specialty facilities, or long term care institutions
- Government health agencies (Ex. Health policies)
- Pharmacy organizations
- International initiatives





University of Waterloo

Tuition

- Fall 2014 program fees:
 - Domestic: approx. **\$9,200** per semester
 - International: **\$21,000** per semester



- Program fees do not include textbooks, University Health Insurance Plan, incidental fees, etc.



University of Waterloo

Application Checklist:

- ✓ Online application (OUAC) & pay fee
- ✓ Complete all prerequisites
- ✓ Submit AIF
- ✓ Submit reference letter and transcript
- ✓ Attend interview (if invited)



University of Waterloo

● Contact Information

Telephone: (519) 888—4848

Fax: (519) 888—7910

Email: pharmacy@uwaterloo.ca

Website:

<https://uwaterloo.ca/pharmacy/future-students>



University of Toronto: Leslie Dan Faculty of Pharmacy





University of Toronto

Doctorate of Pharmacy (PharmD)

- Admits **240 students** each September
 - 730 applicants (2015)
- **Four year** professional entry--to--practice program:



University of Toronto

Example Timetable

FALL TERM: YEAR 1, 2015 - 2016

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:00-10:00		PHM130H1 Lecture PB B150	PHM110H1 Lecture PB B150	PHM145H1 Lecture PB B150	
10:00-11:00		PHM145H1 Lecture PB B150		PHM142H1 Lecture PB B150	
11:00-12:00		PHM142H1 Lecture PB B150	PHM144H1 Lecture PB B150		
12:00-1:00	PHM145H1 Lecture PB B150	PHM144H1 Optional Tutorial PB B150	Other Mandatory Course/Program Requirements PB B150	Houses/UPS	
1:00-2:00	PHM144H1 Lecture PB B150				
2:00-3:00	PHM146H1 Lecture PB B150				PHM144H1 Lecture PB B150
3:00-4:00					PHM113H1 Lecture PB B150
4:00-5:00					



University of Toronto

Academic Requirements

- **Minimum University Average of 70%** (2.7/4.0 or 6/9.0 GPA)
- **Full course load**—30 credits per year (preferred)
- PCAT required
- Must pass interview



Prerequisite Courses (2016) (University of Toronto)

- **Biology**

- Introductory (6 credits):
 - SC/BIOL 1000 and SC/BIOL 1001
- Biochemistry (3-6 credits):
 - SC/BIOL/BCHM 2020 (3.0), or SC/CHEM 2050 (4.0)



Prerequisite Courses (cont.) (University of Toronto)

- **Chemistry**

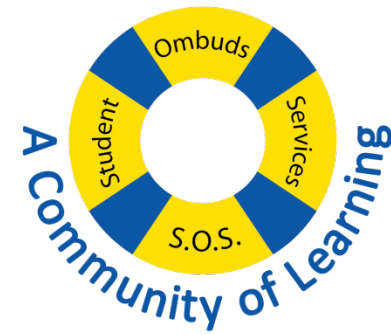
- General Chemistry (6 credits) with lab:
 - SC/CHEM 1000 and SC/CHEM 1001
- Organic Chemistry (6 credits) with lab:
 - SC/CHEM 2020 (3.0) and SC/CHEM 2021 (3.0)
- Physical Chemistry (3 credits):
 - SC/CHEM 2011



Prerequisite Courses (cont.) (University of Toronto)

- **Math**

- Calculus (6 credits):
 - SC/MATH 1013 (3.0) and SC/MATH 1014 (3.0)
 - SC/MATH 1300 (3.0) and SC/MATH 1310 (3.0)
 - GL/MATH 1930 (3.0) and SC/MATH 1940 (3.0)
- Statistics (3-6 credits):
 - SC/MATH 1131 3.0 or SC/MATH 1532
 - SC/BIOL 2060 3.0, HH/PSYC 2021 3.0, HH/KINE 2050 3.0, or GL/MATH 2560



Prerequisite Courses (cont.) (University of Toronto)

- **English**
 - Grade 12 English (ENG4U or equivalent)
 - Or two terms/semesters (6 credits) at University

- **Physics**
 - Grade 12 Physics (SPH4U or equivalent)
 - Or two terms/semesters (6 credits) at University



Prerequisite Courses (cont.) (University of Toronto)

- **Humanities or Social Science**

- 6 credits:

- Classics

- History

- Languages

- Literature

- Religion

- Philosophy

- Economics

- Political
Science

- Introductory
psychology

- Sociology

And
etc...

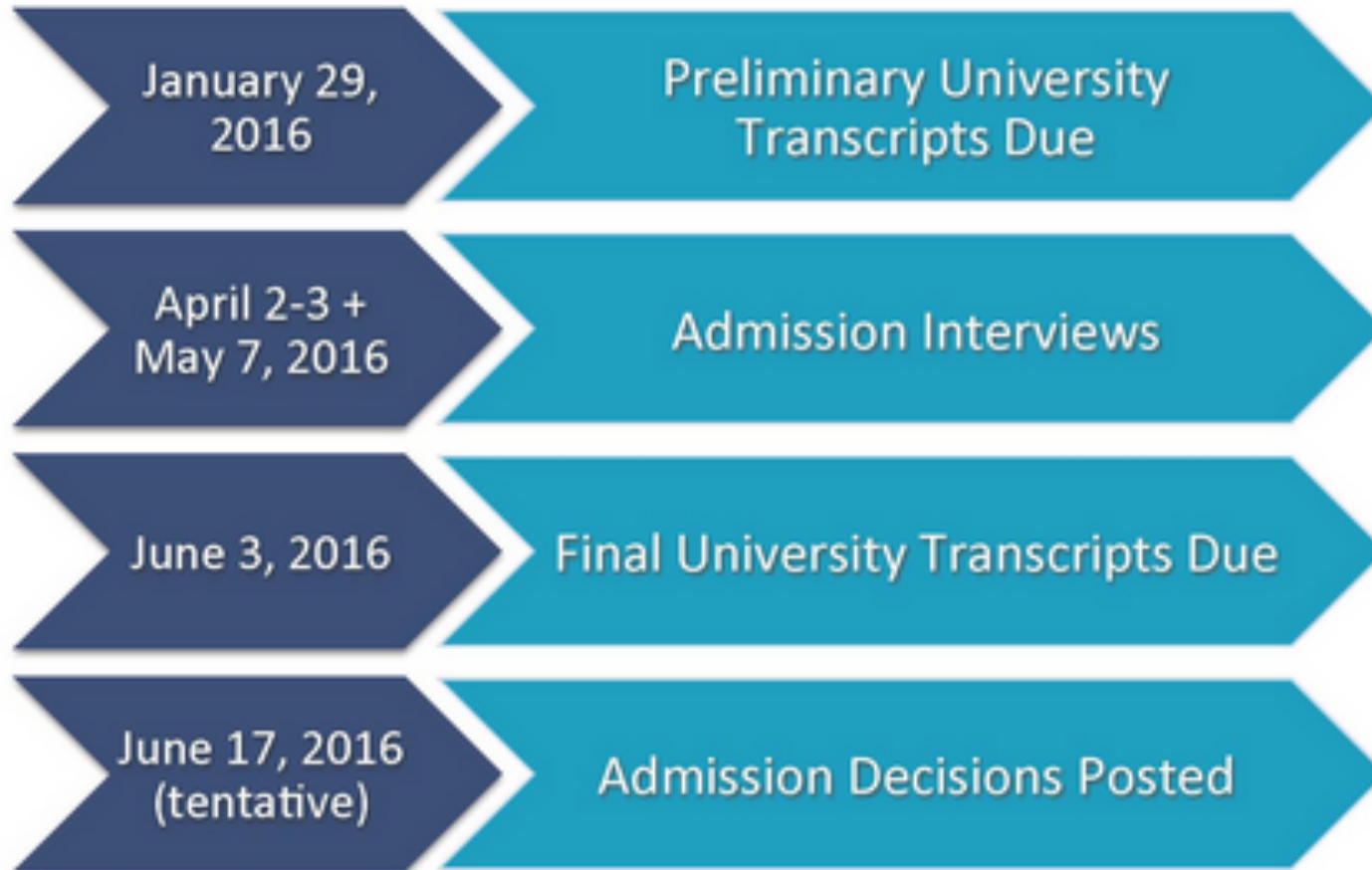


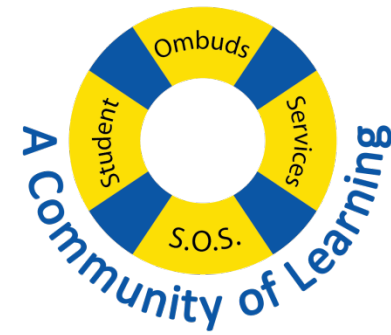
University of Toronto





University of Toronto





University of Toronto

Online application: <http://applicant.phm.utoronto.ca/>

- Submit before December 1st, 2015: Fee = \$250.00
- Submit after December 1st, 2015: Fee = \$300.00

<http://www.pharmacy.utoronto.ca/pharmd/application-process-online-application>



University of Toronto

PCAT Requirements:

	Percentile scores (2015)
Writing	3
Verbal Ability	20
Biology	20
Chemistry	50
Reading Comprehension	20
Quantitative ability	20
Composite	50
Conventions of language (prior to July 2012)	3 (2012)
Problem Solving (Prior to July 2012)	2.5 (2012)



University of Toronto

- **Interview:**

- Multiple-Mini Interview (MMI) style
- Questions about non-academic attributes
- Ex. Question:
 - The parking garage at your place of work has assigned parking spots. On leaving your spot, you are observed by the garage attendant as you back into a neighbouring car, a BMW, knocking out its front left headlight and denting the front left fender. The garage attendant gives you the name and office number of the owner of the neighbouring car, telling you that he is calling ahead to the car owner, Tim. The garage attendant tells you that Tim is expecting your visit. Enter Tim's office.



University of Toronto

Tuition

- 2015-2016 program fees:
 - Domestic: approx. **\$17,350** per year
 - International: **\$35,150** per year





University of Toronto

Application Checklist:

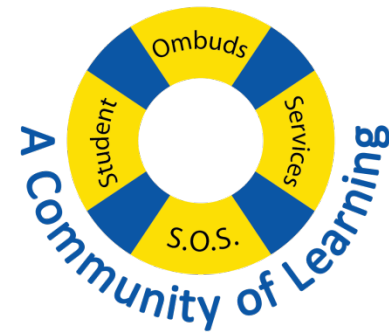
- ✓ Online application
- ✓ PCAT
- ✓ Transcript
- ✓ Pre-requisite courses (see site for new pre-requisite courses for 2017 cycle).
- ✓ Attend interview (if invited)



University of Toronto

- Students who have studied outside of Canada:
 - Course outlines
 - Proof of English Facility
 - <http://www.pharmacy.utoronto.ca/pharmd/admissions/online-application/english-facility>

University of Toronto: Leslie Dan Faculty of Pharmacy



Contact Information

Telephone: (416) 978-3967

Fax: (416) 978-8511

E-mail: adm.phm@utoronto.ca

Website:

[http://www.pharmacy.utoronto.ca/pharmd/
admissions](http://www.pharmacy.utoronto.ca/pharmd/admissions)





Pharmacy School Seminar

Questions? Send us an email!

Joo-Young:

leejooy@my.yorku.ca

Tina Ngo:

tinango1@my.yorku.ca



THANK YOU



Q & A



Session
