



S.O.S. PRESENTS:



Pharmacy School Seminar

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



Who Are We

- Joo-Young Lee
 - 3rd year Biomedical Science Major
 - SOS Peer Mentor and Student Ambassador
- Gurnoor Brar
 - 3rd year
 - SOS Peer Mentor, Tutor and Student Ambassador



Who Are We (Guest Speakers)

- **Sandra Bjelajac Mejia**
 - U of T Pharmacy Admissions Director
- **Heide DeBond**
 - U of T Pharmacy Admissions Assistant
- **Tina Ngo**
 - 1st year U of T Pharmacy Student (FROM YORK)
- **Nisha Gajaria and Steven Guan**
 - 2nd year U of T pharmacy students



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

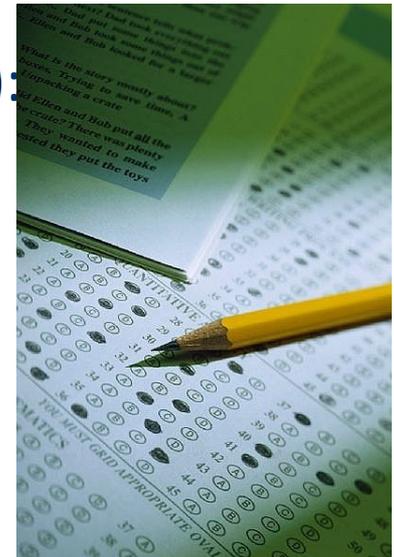
- **Alberta****
 - University of Alberta
- **British Columbia****
 - University of British Columbia

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



Pharmacy College Admission Test (PCAT)

- **NEW test this year**
(Details: <http://www.pcatweb.info/PCAT-Updates.php>)
- **Test required for U of T**
- 3 hours and 25 minutes (plus 15 minute break):
192 MC and 1 writing topic
- Registration Fee: \$210.00
- Register online at:
<http://www.pearsonvue.com/pcat/>
- Can purchase practice tests on the website
- May take up to 5 times





Pharmacy College Admission Test (PCAT)

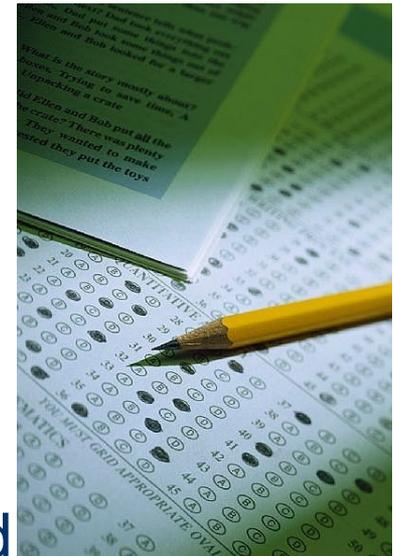
- Held for four testing windows
 - July, September, October/November, and January
 - October 24–31 & November 1–4 2016
 - January 4-5 2015
 - Can register, late fees apply after November 4th 2016 (\$49.00)
 - First come, first served basis

For more information visit: www.pcatweb.info



PCAT – Format

- 5 sections
 1. Writing
 2. Biological Processes
 3. Chemical Processes
 4. Critical Reading
 5. Quantitative Reasoning
- Must achieve certain minimum standard 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)
 - Writing prompt content objectives: health issues, science issues, social/cultural/political issues

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



PCAT – Format

NEW this year:

- **No verbal ability section**
- **Now 40% of the “biological and chemical processes” sections**
 - ✓ **Associated with passages that are on specific research studies**
 - ✓ **Required to use knowledge to interpret and evaluate**



PCAT – Biology

- **Biology (40 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 (40 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 – Critical Reading

- **Critical Reading (50 minutes, 48 questions)**
 - 3 sections:**
 - Comprehension
 - Analysis
 - Evaluation
 - 40% includes interpretation, analysis, and evaluation of passages regarding humanities/ social sciences



PCAT – Quantitative Reasoning

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

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

- 50% involves a practical scenario/situation

*Online standard calculator provided



PCAT - Scoring

- Percentile ranks based on new norms (first time test takers from July 2011-January 2015)
 - Writing:
 - 6 point scale
 - All else:
 - SS: Scaled score (200-600)
 - PR: Percentile rank (1-99)
- Ex. “Biological Processes” SS= 407, PR: 70
- Composite Score provided as well



PCAT: University of Toronto

Minimum PCAT percentile scores required to proceed to Interview stage:

	2013	2014	2015	2016
Biology (Biological Processes)	10	20	20	20
Chemistry (Chemical Processes)	20	50	50	50
Quantitative Ability (Quantitative Reasoning)	10	20	20	20
Reading Comprehension (Critical Reading)	20	20	20	20
Composite	20	50	50	50
Writing	3	3	3	3



University of Waterloo





University of Waterloo

Doctorate of Pharmacy (PharmD)

- Admits **120 students** each January
 - 600 applicants
- **Four year (44 months)** professional entry—to—practice program:
 - 8 academic terms
 - 3 co—op work terms



University of Waterloo

Example Timetable

Fall 2016 Schedule

Rx2019 - 2A

Time	Monday	Tuesday	Wednesday	Thursday	Friday	
8:30						
9:00	PHARM 220/221 LEC 9:00-11:50 PHR 1004 IPFC 1/2 (Feng Chang/Brett Barrett)		PHARM 228 LAB (001) 8:30-10:20 PHR 3026, 2009, 2022, 2024 Professional Practice 3 (Cynthia Richard)		PHARM 220/221 LEC/TUT 8:30-10:20 PHR 1004 IPFC 1/2 (Feng Chang/Brett Barrett)	
9:30						
10:00						
10:30						
11:00		PHARM 220/221 LEC 10:30-1:20 PHR 1004 IPFC 1/2 (Feng Chang/Brett Barrett)	PHARM 228 LAB (002) 11:00-12:50 PHR 3026, 2009, 2022, 2024 Professional Practice 3 (Cynthia Richard)	PHARM 220/221 LEC 10:30-12:20 PHR 1004 IPFC 1/2 (Feng Chang/Brett Barrett)		
11:30						
12:00						
12:30	PHARM 224 TUT 12:30-1:50 PHR 1004 Pharmacokinetic Fundamentals (Andrea Edginton)					
1:00						
1:30						
2:00			PHARM 228 LAB (003) 1:30-3:20 Professional Practice 3 PHR 3026, 2009, 2022, 2024 (Cynthia Richard)			
2:30	PHARM 232 LEC/LAB* 2:30-3:20 PHR 1004/PHR 2019 Medical Microbiology (Ola Wasfi)	PHARM 227 LEC 2:00-3:50 PHR 1004 Health Systems in Society (Wasem Alsabbagh)				
3:00	PHARM 232 LEC/LAB* 3:30-4:20 PHR 1004/PHR 2019 Medical Microbiology (Ola Wasfi)			PHARM 224 LEC 2:30-4:50 PHR 1004 Pharmacokinetics Fundamentals (Andrea Edginton)		
3:30					PHARM 220/221 TUT IPFC 1/2 3:00-4:50 PHR [†] 1008/1012/2024 (Feng Chang/Brett Barrett)	
4:00	PHARM 232 LAB* 4:30-5:20 PHR 2019*Medical Microbiology (Ola Wasfi)					
4:30						
5:00						
5:30						
6:00						
6:30						



University of Waterloo

Curriculum

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



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) or
SC/CHEM 2050 (4.0- lab component included)
- Organic Chemistry with lab (6 credits):
 - SC/CHEM 2020 (3.0) and SC/CHEM 2021 (3.0)



Prerequisite Courses (cont.) (University of Waterloo)

- **English**

- A 3 credit English Course:

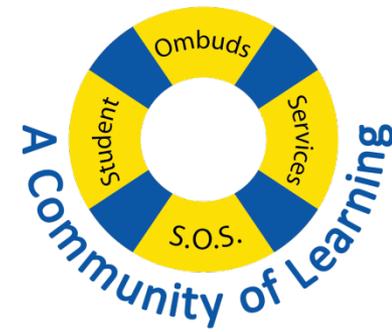
- Examples: EN 1001, 1002, 1006, 1201, 2011, 2012, 3172
- To confirm course equivalency, email:
pharmacy@uwaterloo.ca



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)
 - Or SC/MATH 1300 (3.0) and 1310 (3.0)
- Statistics (3 credits):
 - SC/MATH 1131, 2560 3.0
 - Or SC/BIOL 2060 3.0, HH/PSYC 2020 6.0, or 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
 - Psychology
 - Sociology
 - Philosophy
 - Economics
 - History
 - Geography
 - Etc...

**Email the course syllabus to pharmacy@uwaterloo.ca if unsure



University of Waterloo

Application timeline - January 2018

<i>Date</i>	<i>Event</i>
August 15, 2016	<p>Applications open. Click APPLY to access the online application.</p> <p>For detailed instructions on how to apply, please see the Application Instructions document (PDF)</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.</p>
December 24, 2016 - January 2, 2017	<p>Christmas break</p> <p>Although we welcome your application during the Christmas break, acknowledgement emails will resume the first week of 2017.</p>
January 2, 2017	<p>Deadline to submit the January 2018 application and pay the application fee (midnight EST).</p>



University of Waterloo

January 23, 2017	Deadline to submit AIF for those that applied.
February 6, 2017	<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 6, 2017	Invitations for Pharmacy Admission Interviews sent by email. Those not invited to an interview will also be notified by email.
April 13, 2017	Deadline to confirm attendance for your interview. If you fail to respond by this date, your interview time may be assigned to another applicant.
April 28 – 30, 2017	Pharmacy Admission Interviews and Fundamental Skills Assessment (for selected candidates).
June 2, 2017	Deadline to submit University transcripts with final Winter 2017 grades.



University of Waterloo

June 8, 2017	Admission decisions communicated to all interviewed applicants.
June 22, 2017	Deadline to accept Offer of Admission to Pharmacy.
January 2018	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
- **Experience**

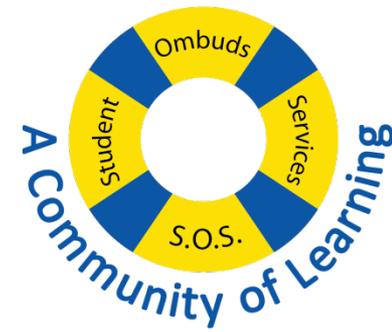


University of Waterloo

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 2016 program fees:
 - Domestic: approx. **\$9,300** per semester
 - International: **\$22,700** 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—4499

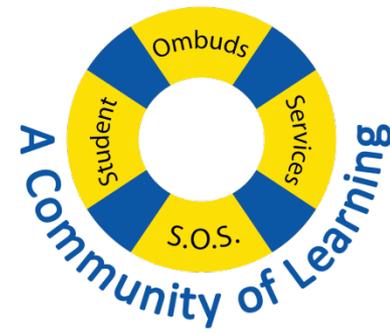
Email: pharmacy@uwaterloo.ca

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, 2016 - 2017

	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				PHM142H1 Lecture PB B150	
11:00-12:00		PHM142H1 Tutorial PB B150	PHM145H1 Lecture PB B150		
12:00-1:00	PHM145H1 Lecture PB B150	PHM144H1 Lecture PB B150	Other Mandatory Course/Program Requirements PB B150	Co-curricular/ Extra-curricular Activities	
1:00-2:00	PHM144H1 Lecture PB B150				
2:00-3:00	PHM146H1 Lecture PB B150				PHM144H1 Lecture PB B150
3:00-4:00					PHM144H1 Optional Tutorial PB B150
4:00-5:00					PHM113H1 Lecture PB B150
5:00-6:00					



University of Toronto

Academic Requirements

- **Minimum University Average of 70% (B-)**
- **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**

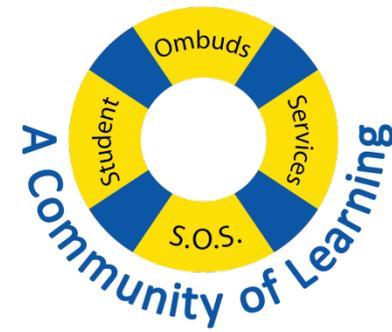
- General Chemistry (6 credits) with lab:
 - SC/CHEM 1000 and SC/CHEM 1001
- Organic Chemistry (6 credits) with lab:
 - SC/CHEM 2020 (3.0) and SC/CHEM 2021 (3.0)
- Physical Chemistry (3 credits):
 - SC/CHEM 2011



Prerequisite Courses (cont.) (University of Toronto)

NEW THIS YEAR!

- **Physiology**
 - Kine 2001 or 2011 (3.0) and 3012 (3.0)



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 (NEW CHANGE!)**
 - One term/semester (3 credits) at University level
Ex. EN 1001, 1006, 1101, 1102, 1103, 1201, 1602, 1953...
- **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

- Literature

- Religion

- Philosophy

- Sociology

- Economics

- Political

- Science

- Introductory
psychology

And
etc...

**NEW FOR THIS YEAR:
LANGUAGE COURSES ARE NOT ACCEPTED**

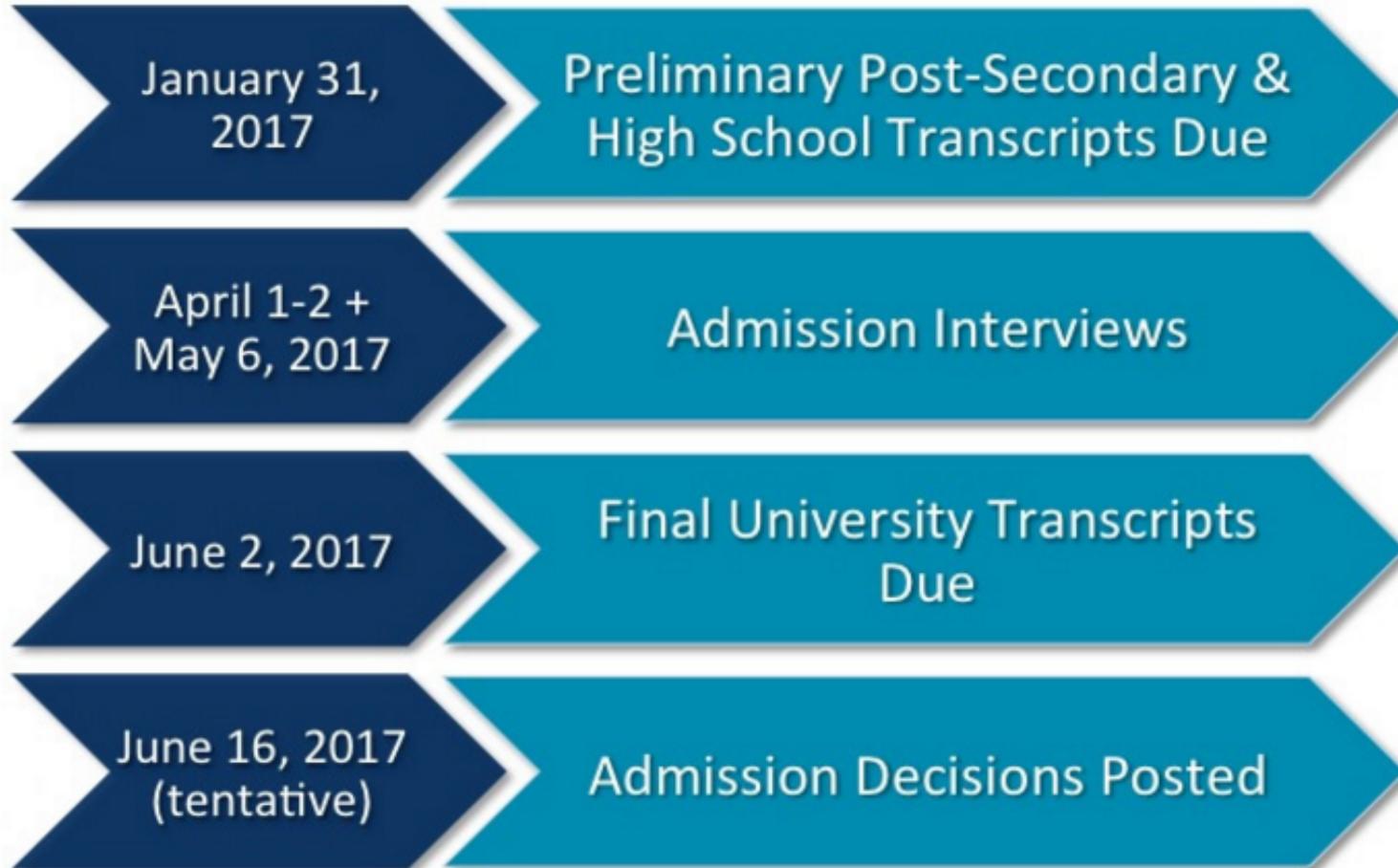


University of Toronto





University of Toronto





University of Toronto

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

- Submit before December 1st, 2016: Fee = \$250.00
- Submit after December 1st, 2016: Fee = \$300.00

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



University of Toronto

- **Interview:**

- Multiple-Mini Interview (MMI) style
- 8-10 interviews, each approx. 6-7 minutes long
- 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

- 2016 program fees:
 - Domestic: **\$18,210** per year
 - International: **\$36,420** per year

* Not including incidental fees





University of Toronto

Application Checklist:

- ✓ Online application
- ✓ PCAT
- ✓ Transcript
- ✓ Pre-requisite courses
- ✓ 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 (Admissions office)

Telephone: (416) 978-3967

E-mail: adm.phm@utoronto.ca

Website:

<http://www.pharmacy.utoronto.ca/pharmd/admissions>





Pharmacy School Seminar

Questions? Send us an email!



Joo-Young:

leejooy@my.yorku.ca

Gurnoor:

gbrar345@my.yorku.ca

THANK YOU



Q & A



Session
