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**
  - 1\(^{st}\) year U of T Pharmacy Student (FROM YORK)
- **Nisha Gajaria and Steven Guan**
  - 2\(^{nd}\) 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:
- 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/pcatlookupblueprintandsampleitems.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
What is the product of ethyne with water and H₂SO₄ in HgSO₄?

- a. CH₂CH₂
- b. CH₃CHO
- c. CH₃CH₃
- d. CH₃CH₂OH
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:

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<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tbody>
<tr>
<td>Biology (Biological Processes)</td>
<td>10</td>
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<td>Chemistry (Chemical Processes)</td>
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<td>Quantitative Ability (Quantitative Reasoning)</td>
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<td>Reading Comprehension (Critical Reading)</td>
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<td>Composite</td>
<td>20</td>
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<td>Writing</td>
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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

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>8:30</td>
<td>PHARM 220/221 LEC 9:00-11:50</td>
<td>PHARM 220/221 LEC 10:30-12:20</td>
<td>PHARM 228 LAB (001) 8:30-10:20</td>
<td>PHARM 220/221 LEC 10:30-12:20</td>
<td>PHARM 220/221 LEC/TUT 8:30-10:20</td>
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<tr>
<td>9:00</td>
<td>PHE 1004 IPFC 1/2 (Feng Chang/Brett Barrett)</td>
<td>PHE 1004 IPFC 1/2 (Feng Chang/Brett Barrett)</td>
<td>PHE 3026, 2009, 2022, 2024 Professional Practice 3 (Cynthia Richard)</td>
<td>PHE 1004 IPFC 1/2 (Feng Chang/Brett Barrett)</td>
<td>PHE 1004 IPFC 1/2 (Feng Chang/Brett Barrett)</td>
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<td>PHARM 228 LAB (002) 11:00-12:50 PHE 3026, 2009, 2022, 2024 Professional Practice 3 (Cynthia Richard)</td>
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<td>12:30</td>
<td>PHARM 224 TUT 12:30-1:50 PHE 1004 Pharmacokinetic Fundamentals (Andrea Edginton)</td>
<td>PHARM 227 LEC 2:00-3:50 PHE 1004 Health Systems in Society (Wasem Alsabbagh)</td>
<td>PHARM 228 LAB (003) 1:30-3:20 Professional Practice 3 PHE 3026, 2009, 2022, 2024 (Cynthia Richard)</td>
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<tr>
<td>3:30</td>
<td>PHARM 232 LEC/LAB* 3:30-4:20  PHE 1004/PHR 2019 Medical Microbiology (Ola Wasfi)</td>
<td>PHARM 232 LEC/LAB* 4:30-5:20  PHE 1004/PHR 2019 Medical Microbiology (Ola Wasfi)</td>
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*PHARM 232 LAB* 4:30-5:20  PHE 1004/PHR 2019 Medical Microbiology (Ola Wasfi)
# University of Waterloo

## Curriculum

<table>
<thead>
<tr>
<th>Year</th>
<th>Term</th>
<th>Date</th>
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<tbody>
<tr>
<td>Year 1</td>
<td>Winter</td>
<td>Academic (1A)</td>
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<td></td>
<td>Spring</td>
<td>Academic (1B)</td>
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<td></td>
<td>Fall</td>
<td>Academic (2A)</td>
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<td>Year 2</td>
<td>Winter</td>
<td>Work Term 1</td>
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<tr>
<td></td>
<td>Spring</td>
<td>Academic (2B)</td>
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<tr>
<td></td>
<td>Fall</td>
<td>Work Term 2</td>
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<tr>
<td>Year 3</td>
<td>Winter</td>
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<td></td>
<td>Spring</td>
<td>Work Term 3</td>
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<tr>
<td></td>
<td>Fall</td>
<td>Academic (3B)</td>
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<tr>
<td>Year 4</td>
<td>Winter</td>
<td>Academic (4A)</td>
</tr>
<tr>
<td></td>
<td>Spring</td>
<td>Academic (4B)</td>
</tr>
</tbody>
</table>
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:
    - To confirm course equivalency, email: pharmacy@uwaterloo.ca
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
    - Psychology
    - Philosophy
    - History
    - Languages
    - Sociology
    - Economics
    - Geography
    - Etc...

**Email the course syllabus to pharmacy@uwaterloo.ca if unsure**
### Application timeline - January 2018

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>August 15, 2016</td>
<td>Applications open. Click <a href="#">APPLY</a> to access the online application. For detailed instructions on how to apply, please see the <a href="#">Application Instructions document (PDF)</a>. 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.</td>
</tr>
</tbody>
</table>
| December 24, 2016 - January 2, 2017 | Christmas break  
Although we welcome your application during the Christmas break, acknowledgement emails will resume the first week of 2017. |
<p>| January 2, 2017         | Deadline to submit the January 2018 application and pay the application fee (midnight EST). |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 23, 2017</td>
<td>Deadline to submit AIF for those that applied.</td>
</tr>
</tbody>
</table>
| February 6, 2017      | Deadline to submit the following items: (details will be provided in the acknowledgement email you will receive after you apply to the program):  
  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

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>June 8, 2017</td>
<td>Admission decisions communicated to all interviewed applicants.</td>
</tr>
<tr>
<td>June 22, 2017</td>
<td>Deadline to accept Offer of Admission to Pharmacy.</td>
</tr>
<tr>
<td>January 2018</td>
<td>Lectures begin</td>
</tr>
</tbody>
</table>
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**
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
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:
# Example Timetable

## FALL TERM: YEAR 1, 2016 - 2017

<table>
<thead>
<tr>
<th></th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tr>
<td>9:00-10:00</td>
<td></td>
<td>PHM130H1 Lecture PB B150</td>
<td>PHM110H1 Lecture PB B150</td>
<td>PHM145H1 Lecture PB B150</td>
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<td>PHM142H1 Tutorial PB B150</td>
<td>PHM142H1 Lecture PB B150</td>
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<td>PHM142H1 Lecture PB B150</td>
<td>PHM145H1 Lecture PB B150</td>
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<tr>
<td>12:00-1:00</td>
<td>PHM145H1 Lecture PB B150</td>
<td>PHM144H1 Lecture PB B150</td>
<td>Other Mandatory Course/Program Requirements PB B150</td>
<td>Co-curricular/Extra-curricular Activities</td>
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<tr>
<td>1:00-2:00</td>
<td>PHM144H1 Lecture PB B150</td>
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<tr>
<td>2:00-3:00</td>
<td>PHM146H1 Lecture PB B150</td>
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<td>PHM144H1 Lecture PB B150</td>
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<td>PHM144H1 Optional Tutorial PB B150</td>
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<td>PHM113H1 Lecture PB B150</td>
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<td>5:00-6:00</td>
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University of Toronto

Academic Requirements

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

- **Full course load**—30 credits per year (preferred)

- PCAT **required**

- Must pass interview
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)
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
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

- Online Application Opens: September 19, 2016
- Early Bird Application Deadline: December 1, 2016
- Final Application Deadline: January 6, 2017
University of Toronto

- January 31, 2017: Preliminary Post-Secondary & High School Transcripts Due
- April 1-2 + May 6, 2017: Admission Interviews
- June 2, 2017: Final University Transcripts Due
- June 16, 2017 (tentative): Admission Decisions Posted
University of Toronto

Online application: [http://applicant.phm.utoronto.ca/](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](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: leejoooy@my.yorku.ca

Gurnoor: gbrar345@my.yorku.ca

THANK YOU
Q & A

Session