




UNIVERSITY OF TORONTO
LESLIE DAN FACULTY OF PHARMACY

2019 - 2020 PHARMD APPLICATION HANDBOOK



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Program Overview

A Doctor of Pharmacy (PharmD) degree from the University of Toronto's Leslie Dan Faculty of Pharmacy opens the door to diverse and rewarding health-focused careers. Consistently ranked as the top faculty of pharmacy in Canada and one of the top five in the world, we offer a vibrant community of world-leading professionals and researchers and endless opportunities for growth.

In addition to course work which is taught in a variety of formats, our students participate in over 40 weeks of hands-on experiential learning at various practice sites, with 320 hours completed in the first two years of the four year program.

This PharmD Application Handbook is intended to help candidates through the application process. Please ensure you also consult our website at pharmacy.utoronto.ca/pharmd before preparing your application.

If you have any questions about the application process and timelines for the PharmD program, please reach out to the PharmD Admissions Office:

PHARMD ADMISSIONS OFFICE
144 COLLEGE ST. TORONTO, ONTARIO M5S 3M2
[\(416\) 978-3967](tel:(416)978-3967)
adm.phm@utoronto.ca

Additional Information About Subject Requirements for September 2020

To be eligible for admission to the PharmD program in September 2020, applicants must successfully complete the subjects listed below in time for final grades to be reported to our office no later than May 29, 2020. This requires that all courses be completed by the end of the second term/semester of the 2019-20 academic year, i.e. typically by the end of April.

For examples of acceptable university courses at all Ontario universities, including all three University of Toronto campuses, (as well as some non-Ontario post-secondary institutions) [please click here](#). Important details related to each of the subject requirements are given below.

Introductory Biology

- Must be university level
- Minimum of two terms/semesters
- Laboratory component not required
- Introductory (i.e. first year) Biology courses such as General Biology, Organisms in Their Environment, and Cell Biology are among the broad range of courses that fulfill this requirement. Anatomy and Physiology courses, however, do not fulfill this requirement (note: Human Physiology is a separate requirement).
- Equivalent to [BIO120H1](#) plus [BIO130H1](#) at the University of Toronto

Chemistry

Please note that candidates who attend a university where two terms/semesters of Introductory/General Chemistry are offered in first year must complete both terms and would normally require a total of 5 half-credit courses (or 2.5 full-credit equivalent courses) to fulfill the complete Chemistry requirement (combination of Introductory, Organic and Physical Chemistry). Where only one term/semester of Introductory/General Chemistry is offered in first year and Organic Chemistry I is offered as a first year course, the Chemistry requirement may be completed within 4 half-credit courses (or 2.0 full-credit equivalent courses).

Introductory Chemistry

- Must be university level
 - Minimum of one to two terms/semesters
 - At universities where Introductory/General Chemistry is offered as two half-credit courses (with each being one term/semester), both terms/semesters must be completed to fulfill this requirement. Introductory courses must serve as pre-requisite courses for upper level Chemistry courses to qualify for this requirement.
 - Minimum of 18 hours of laboratory component. If laboratory component is offered separately from the course, applicants must be registered in the laboratory course as well.
 - Equivalent to [CHM135H1](#) or former [CHM139H1](#) at the University of Toronto
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Organic Chemistry

- Must be university level
- Minimum of two terms/semesters (at some universities the first half may be a first-year credit, while at many universities both halves are second year courses).
- Minimum of 40 hours of laboratory component. If laboratory component is offered separately from the course, applicants must be registered in the laboratory course as well.
- Equivalent to [CHM136H](#) (or former [138H1](#)) plus [CHM247H1](#) at the University of Toronto

Physical Chemistry (Thermodynamics and Kinetics)

- Must be university level
- Minimum of one term/semester
- Must be a second year or higher level course. Although components of Physical chemistry are taught in many first year chemistry courses, it is the second year material that is required to meet this requirement.
- Minimum of one term/semester. At some institutions, two terms/semesters may be required to cover the required material.
- No laboratory component required
- First year Chemistry and Calculus courses are generally pre-requisites for acceptable Physical Chemistry Courses. At some institutions, first year university Physics courses may also be a pre-requisite.
- Note that courses in Analytical Chemistry will not meet this requirement.
- Equivalent to [CHM220H1](#) at the University of Toronto

CEGEP credits do not meet this requirement.

Calculus

- Must be university level
- Minimum of two terms/semesters
- Must be traditional Calculus that covers differentiation and integration
- Course must be a pre-requisite for upper/advanced level Calculus and/or physical sciences courses. Courses that do not serve as a pre-requisite for further Calculus/physical sciences courses do not meet the requirement.
- Pre-Calculus credits do not meet the requirement.
- Equivalent to [MAT135H1](#) + [MAT136H1](#) or former [MAT135Y1](#) at the University of Toronto

Biochemistry

- Must be university level, generally second year or higher level courses
 - Minimum of one term/semester. At some universities, two semesters may be required to cover required course content.
 - No laboratory component required
 - Courses such as Introductory Biochemistry, as well as some combinations of second/upper year courses in Molecular Biology and Cell Biology, are examples of courses that may meet the Biochemistry requirement. Many of these second or upper year courses have Introductory Biology and/or Organic Chemistry as pre- or co-requisites.
 - Equivalent to [BCH242Y1](#) or [BCH210H1](#) at the University of Toronto
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Human Physiology

- Must be university level
- Minimum of one to two terms/semesters (depending on the specifics of the courses offered)
- Acceptable courses are those which cover all major systems in Human Physiology including Neurophysiology, Endocrine, Cardiac, Respiratory, Digestive, Reproductive, Urinary, Musculoskeletal, Fluids and Electrolytes.
- At universities where the material is offered over the span of two terms/semesters (e.g. Physiology I and II) both are required. The course(s) must have an emphasis on human physiology.
- Equivalent to [PSL201Y1](#) or [PSL300H1 + 301H1](#)

CEGEP credits do not meet this requirement

Statistics

- Must be university level
- Introductory course in statistical concepts and methods
- Minimum of one term/semester. At some universities, two semesters may be required to cover required course content.
- Courses that cover other material and include statistics as only one component of the course do not meet the academic requirement
- First year or upper level courses are suitable
- Statistics courses offered through other disciplines, such as Psychology or Sociology, may also be considered
- Equivalent to [STA220H1](#) at the University of Toronto

Humanities/Social Sciences (Note: Language courses are not considered in fulfilment of this requirement)

- Must be university level
 - Minimum of two terms/semesters
 - Courses can be introductory or advanced level
 - You may combine one term/semester of Humanities with one term/semester of Social Sciences, or two terms/semesters in the same discipline or subject area
 - A wide range of Humanities and Social Science courses are acceptable including, but not necessarily limited to, those listed below:
 - Anthropology (excluding Physical Sciences)
 - Classics (excluding languages)
 - Criminology
 - Economics
 - English (excluding language courses)
 - Geography (Human Geography)
 - History
 - Jewish Studies
 - Linguistics (excluding those classed as Science)
 - Music
 - Philosophy
 - Political Science
 - Psychology (Introductory only)
 - Religion
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- Sociology
- Most U of Toronto seminar courses (excluding SCI and interdisciplinary courses which have a science component)
- Most U of Toronto UNI, TRN, SMC, WDW and VIC courses
- Women and Gender Studies

Some exceptions to the courses listed above include:

- Upper year courses in some disciplines (such as Sociology and Economics) may be Statistics courses which would not be acceptable for purposes of meeting this requirement.
- Courses offered under disciplines such as History or Classics, but which are language courses (e.g. Indigenous Languages under 'History' or Latin or Greek under 'Classics') are not acceptable.
- Philosophy courses which are math based such as Modern Symbolic Logic (PHL245H1 at U of Toronto) are not acceptable.

Additional Exclusions: The following subject areas, or courses under other disciplines which offer similar material, do not fulfill the Humanities/Social Science subject requirement: Accounting, Astronomy, Computer Science, Geology, Languages, Life Sciences, Mathematics, Statistics, Physical Education, Physical Sciences, Report/Technical Writing, U of Toronto SCI seminar courses.

- Courses from educational systems such as IB (Higher Levels), Advanced Placement exams, GCE 'A' levels (UK or equivalent examining authorities), and CEGEP (Quebec), are acceptable in meeting all or part of the Humanities/Social Science if university transfer credit has been awarded for relevant course(s). Courses for which no university transfer credit was awarded will normally not be considered for purposes of meeting the Humanities/Social Science subject requirement. Refer to '[Information for Candidates – Non-Ontario and International](#)' for further details including grade requirements.

English (Literature/Composition)

- Must be university level (**Note: this is a change from a Grade 12 requirement as of the 2017 admission cycle**)
 - One term/semester
 - A wide selection of English Literature/Composition courses are acceptable. This includes courses such as Effective Writing, Children's Literature, The Graphic Novel, Science Fiction, Fantasy and Horror, and Poetry and Prose. U of Toronto PCL285H1 (taken 2009 to 2015) will also be accepted in fulfilment of this requirement.
 - English courses completed in one of the systems given below are also acceptable for purposes of meeting the English subject requirement:
 - International Baccalaureate (IB) Higher Level credit in English Literature [or English Language & Literature] with a grade of at least 5 (Note English B is not acceptable),
 - Advanced Placement examination in English Literature and Composition [or English Language and Composition] with a grade of at least 4
 - General Certificate of Education (GCE) 'A' Level English Literature [or English Language and Literature] from a UK or equivalent examining authority, with grade of at least 'C'
 - CEGEP English courses (courses codes beginning with '603' – NOTE courses coded '604' do not meet this requirement)
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- Courses may be Introductory (100 level) or advanced (upper year) courses. [Click here](#) to view a listing of some of the acceptable 100 level credits offered at various universities. However, this is not a complete list – it provides examples only of the 100 level credits (including some online course offerings) as well as examples of some English credits which will not meet the requirement.
- The following do not fulfill the English subject requirement: Report Writing, Technical Writing, Business Communications, ESL (English as a Second Language), or courses that focus on Social Media or Drama (Theatre/Performance).
 - With very few exceptions the course must be offered through an ‘English’ department (i.e. coded as ‘ENG’). Courses in writing or communications for science students, offered through various other departments/disciplines, are among the courses which will not be considered. However, U of Toronto PCL285H1 (taken 2009 to 2015) will be accepted in fulfilment of the requirement.
 - Candidates who have studied outside Canada/USA should note that for purposes of meeting the English subject requirement the course must normally be taken at a university where the medium of instruction is English. If the medium of instruction is English, but the university is located in a country where the dominant language is other than English, the course(s) will be considered on a case-by-case basis (English language credits will not meet the requirement).

Note: the English academic requirement does not replace the English facility requirement for those required to submit English Facility test scores – they are two separate requirements.

Physics

- Required only at the Grade 12 High school level – (Ontario Secondary School SPH4U or equivalent), Alternatively, you may choose to use first-year university level Physics. At the university level two terms/semesters is generally required to cover all major topics – labs are not required.
 - University academic-bridging courses, which are only one term in duration, typically do not meet the requirement.
 - There is no preference for those with university level credit as opposed to the Grade 12 credit
 - Candidates who have not previously taken grade 12 Physics may opt to take SPH4U online through the Independent Learning Centre (www.ilc.org) during their university studies.
 - Physics courses offered to Arts students to fulfill science breadth requirements do not meet the requirement; a traditional Physics credit is required.

Applicants who have studied outside of Canada must submit detailed course outlines for any courses intended to satisfy the Chemistry, Calculus, Biochemistry, Statistics and Human Physiology subject requirements. These detailed outlines are to be submitted after the submission of your online application. Applicants should retain course outlines for the remainder of the required subjects in the event they are requested.

EXAMPLES OF ACCEPTABLE ENGLISH COURSES AT ONTARIO UNIVERSITIES

- The following table provides examples of many of the acceptable Introductory (first year) level English courses identified at Ontario universities, plus some online courses at non-Ontario institutions.
- There are also some specific examples of unacceptable courses for reference.
- ***You are not limited to the first year level credits; you may choose from the very large variety of courses offered at the upper year levels if you have the pre-requisite(s) as required at your home university.***
- You should also note that there may be restrictions on enrolment based on your program of study.

Acceptable courses include English Composition and English Literature courses in many genres including Children’s Literature, Science Fiction, Poetry and Prose, Detective Fiction, Fantasy and Horror, and The Graphic Novel.

University	Course Code
Algoma	ENGL1006
Athabasca University (Alberta) ONLINE courses https://tux.athabascau.ca/oros/servlet/DispatcherServlet Challenge for credit is not acceptable.	One of: ENGL211 or 255 Note ‘100’ level courses are NOT acceptable
Brock	One of : ENGL 1F91 , 1F95, 1F97
Carleton	One of: ENGL1000, 1009, 1010, 1100, 1200, 1300, 1400 ENGL2200 (online) is NOT acceptable
Guelph	One of: ENGL1030, 1080, 1200, 1410
Lakehead	One of: ENGL 1011, 1015, 1016, 1031, 1115, 1116, 1117, 1118 (ENG1238 is NOT Acceptable)
Laurentian	One of : ENG1705 or 1706
McMaster	One of: ENGL 1C06, 1CS3, 1F03, 1G03, 1H03 Or former ENG1A03 or 1AA3
Nipissing	One of : ENGL 1006, 1007, 1016, 1017, 1026, 1027, 1036, 1037 (ENGL1551 is NOT acceptable)
Ottawa	One of : ENG1100, 1120, 1121, 1124 (ENG1112 and 1131 are NOT acceptable)
Queen’s	One of: ENGL100 (also offered online) or 160

Ryerson	One of : ENG/CENG 101, 104, 108, 112 (CENG 108 and 112 are also offered online)
Thompson Rivers University (ONLINE courses) http://www.tru.ca/distance/register.html	One of : ENGL1001, 1009, 1019, 1021, 1101 Note: courses beginning with '0' are NOT acceptable
Toronto (St George)	One of: ENG100H1, 102H1, 110Y1, 140Y1 or 150Y1 former PCL285H1 (offered from 2009 to 2015) is also acceptable <i>ENG287H1 (The Digital Text) is NOT acceptable</i>
Toronto (Mississauga)	One of : ENG100H5, 101H5, 110H5, 140Y5 <i>ENG121H5 and 122H5 – Theatre and Drama- are NOT acceptable</i>
Toronto (Scarborough)	One of : ENGA10H3 or ENGA11H3
Trent	One Of: ENGL1001H, 1003H, 1005H, 2001H
University of Ontario Institute of Technology	Joint courses offered with Trent University – see Trent listing above
Waterloo	One of: ENGL100A/B/C, 101A/B, 104,108A/B/C/E/F/H/M, 109, 190, 140R (ENGL101B, 109, and 190 also offered online) <i>ENG108D (Digital Lives) is NOT acceptable</i> <i>ENGL/ESL/EMSL 129R is NOT acceptable</i>
Western	One of : ENG1020E, 1022E, 1024E, 1027F/G, 1028F/G
Wilfrid Laurier	One of: EN107, 108, 111, 119, 165, 190
Windsor	One of: English 1009,1229, 1239, 1289, 1409
York	One of : EN1001 3.0, 1006 3.0, 1101 6.0, 1102 6.0, 1103 6.0, 1201 6.0, 1602 6.0, 1953 6.0

Course Codes – Examples at some Canadian universities – for admission in September 2020

- This table lists all Ontario universities, in addition to some non-Ontario institutions for which we get the most inquiries.
- Where a '+' sign is indicated you must present both (or all) courses. A forward slash ('/') designates 'or'
- Note: Physics (at the Grade 12 level), English (one semester at university) and Humanities/Social Science (two semesters at university) are required but are not listed on the table below.
- Refer to the 'Additional Information about Subject Requirements' section of the Handbook for details of these requirements.
 - ***Information available as of Sept 11, 2019 – Updates may be made as new information becomes available***

University	Introductory/General Biology Minimum of 2 terms/semesters	Introductory/General Chemistry Minimum of 1-2 terms/semesters – labs required	Organic Chemistry Minimum of 2 terms/semesters- labs required	Physical Chemistry Minimum of 1 term/semester	Calculus Minimum of 2 terms/semesters	Statistics Minimum of 1 term/semester	Biochemistry Minimum of 1-2 terms/semesters	Human Physiology
Algoma	BIOL 1506 + BIOL 1507 Or former BIOL 1021 + 1022	CHMI 1006 + 1007	CHMI 2426 + 2427	None Known	MATH 1036 + 1037	Or STAT 2126 Or former STAT 2606 Or former MATH 2261	CHMI 3016 OR BIOL 3716	BIOL 3126 + 3127
Athabasca (Alberta) NOTE: Challenge for credit is not acceptable	BIOL 204 + 205 (or +207)	CHEM 217 + 218	CHEM 350 + 360	None known	Math 265 + 266	Math 215 or 216	Chem 301	BIOL230 Or BIOL235
Brock	BIOL1P91 + 1P92 OR former Biol 1F90	Chem1P91 + 1P92 Or former Chem 1F92	Chem2P20+2P21	Chem 2P63 Or BTEC2P63	Math 1P05 +1P06 Or 1P01 +1P02 Note: Math IP97 is NOT acceptable	Math1P98 Or PSYC2F23	BIOL2P02 + 2P03 Or former Biol2F01	CHSC/HLCS 2P09 + BIOL2P97
U of British Columbia	BIOL 115/110/112 + BIOL 120/121	Chem 121 + 123 (or + former 122) Or Chem 111 + 113	Chem 203 + 204 Or Chem 123 + 233 + 235 lab	Chem 205/201/304	Math102 + 103 Or Math 120 + 121 Or 100 + 101/103	Stat203/200/230/241/251 Or BIOL 300	BIOC202/203/300/302/303 BIOL311 (Okanagan)	CAPS/PHYL 301 OR KIN 190 + 191

University	Introductory/General Biology Minimum of 2 terms/semesters	Introductory/General Chemistry Minimum of 1-2 terms/semesters – labs required	Organic Chemistry Minimum of 2 terms/semesters- labs required	Physical Chemistry Minimum of 1 term/semester	Calculus Minimum of 2 terms/semesters	Statistics Minimum of 1 term/semester	Biochemistry Minimum of 1-2 terms/semesters	Human Physiology
	Or BIOL 116 + 125 (Okanagan)		Or Chem 203 + Chem 213 + 245 lab		Or Math 104 + 105			Or BIOL131 + 133 (Okanagan) Or HMKN 190 + 191 (Okanagan)
Carleton	BIOL 1103 + 1104 Or former BIOL 1003+1004	Chem1001 (or 1005) + 1002 (or +1006) Or former Chem1000 Or former 65.100	Chem 2203+2204	Chem2103	Math 1007+2007 Or former 69.107+69.207	Stat2507	Bioc/Biol 2200 Former Bioc 2300 is NOT acceptable	BIOL 3306 + 3307
CEGEP (Quebec)	General Biology I and II (course codes beginning with '101')	General chemistry + Chemistry of Solutions (course codes beginning with '202')	Organic Chem I and II (course codes beginning with '202')	None acceptable	Calculus I and II (course codes beginning with '201')	No examples available	No examples available	None acceptable
Guelph	Any two of : BIOL1050, 1070, 1080, 1090 Or former Biol1030 +1040	Chem 1040+1050 Or former 19-104+105	Chem2700+3750	Chem2880 or 2820	Math1200 +1210 Or 1080+1090 (or + former 2080) Or former 63-120+63-121 Or 63-108+63-208	Stat2040 Or Stat 2080	Bioc2580	BIOM3200 OR HK2810 + 3810 OR Former BIOM3100 + 3110 OR former HK3940
Lakehead	Biology 1110+1130	Chem 1110+1130 Or former Chem 1101	Chem2211 +2231	Chem2411	Math1171 + 1172 Or former Math 1180 (Math1160 is NOT acceptable)	Math 2310 + 2311 Or former Math2321 Or KINE3030	Chem3251 Or Biol 3252	BIOL 2030/2035
Laurentian	Biol 1506+1507	CHMI1006+1007	CHMI2426 +2427	CHMI2516 or 2526	Math 1036 +1037	Stat2246 Or Stat2126	CHMI2227	BIOL2105
McGill (Quebec)	BIOL111 + 112	Chem 110 + 120	Chem 212 + 222	Chem 203/223/204	Math 140 + 141	Math 203 Or PSYC204	BIO200 + 201 OR BIOC/ANAT 212	PHGY209 + 210
McMaster	Biol 1A03 + (1M03 or former 1AA3) Or former 1A06 Or Hlth Sci 1106	Chem 1A03+1AA3 Or former 1A06	Chem/ChemBio 20A3 +20B3 Or Chem20C3 + 20D3 + 2LA3 lab + 2LB3 lab Or former Chem2BA3 + 2BB3 + 2L03	ChemBio/Chem 2P03 Or former Chem 2R03 Or former Chem2PD3	Math 1A03 (or 1LS3 with B-) + 1AA3 Or Math 1LS3 + 1LT3 Or former Math 1C06, Or 1A06	Stats2B03 Or HTH SCI 2A03 Or HTH SCI2G03 Or former Stats 1CC3 Or former HTH SCI 1F03	Bchm 2EE3 Or Bchm 2B03 + 2BB3 Or Bchm3G03	Kines 1A03/1Y03/2Y03 + 1AA3/1YY3/2YY3 Or BIO 3U03 + 3UU3 Or Hlth Sci 2F03 + 2FF3
Nipissing	Biol 1006+1007	Chem1006 + 1007 Or former Chem1005	Chem2306 +2307	None Known	Math1036+1037	Math1257	Biol2206	BIOL 2706 + 2707

University	Introductory/General Biology Minimum of 2 terms/semesters	Introductory/General Chemistry Minimum of 1-2 terms/semesters – labs required	Organic Chemistry Minimum of 2 terms/semesters- labs required	Physical Chemistry Minimum of 1 term/semester	Calculus Minimum of 2 terms/semesters	Statistics Minimum of 1 term/semester	Biochemistry Minimum of 1-2 terms/semesters	Human Physiology
Ottawa	Bio 1130+1140 OR Bio 1530 + 1540 Or Former Bio 1110 +1120	Chm1311 (or 1301) Or Chm1711 (or 1701) Or former 1310 Or former Chm1110 + 1116 lab	Chem1321 +2120 +2123 lab Or 1721 +2520 + 2523 lab- Or former Chem1120+1126 lab+1121+2126 lab	Chem2132 or 2131 Or 2531 Or 2532	Math 1320 + 1322 Or 1330 + 1332 Or 1720 + 1722 Or 1730 + 1732 (former Math 1323 is NOT acceptable)	Math 2379 Or Math 2779 Or former Math 2378 Or HSS2381	BCH2333 Or BCH 2733 BCH1100 is NOT acceptable	PHS3341 + 3342 OR ANP1105 + 1106 OR ANP1505+1506 Or former ANP 1101 + 1103
Queen's	Biol 102+103 Or former Bio 101	Chem112 Or former 116 [Online versions Chem 113 +114 are NOT acceptable due to virtual lab]	Chem 281 + 282 Or Chem211 + 212 + 223 (Online Chem 285 is NOT acceptable due to virtual lab)	Chem 221	Math 120 or 121, Or Math 123+124 Or Math 126 Or former 122	Stat 263 or 268 Or Biol 243 Or KNPE251	BCHM218 Or BCHM 310 Or BCHM315 Or former MBIO218	PHGY215 +216 OR former PHGY210/212/214
Ryerson	BLG (or CBLG) 143+144 (CBLG 010 is NOT acceptable)	CHY103+ CHY113 Or CCHY103 (or CKCH106) + CKCH107 lab +CKCH113 (CKCH108+109 is NOT acceptable)	CHY142 + CHY242 Or CKCH142+CKCH143 lab + CCHY/CHY242 (or + CKCH242)	CHY381 Or CCHY381	MTH/CMTH 131+231 Or MTH140+240 Or MTH/CMTH207 + 310 Or former 130+230 Or MTH019	C/MTH304 or 380 OR CMTH304 Or Former MTH 203	BCH261 (or former CHY261) Or CHY 204 Or CKCH225	BLG 600 or BLG10A/B Or PLN103 + 203
Toronto (St. George)	BIO120H1 + 130H1 Or former BIO150Y1	CHM135H1 (or former CHM139H1) Or CHM151Y1 Or former CHM137Y	CHM136H1 (or former CHM138H1) + (247H1 or 249H1) Or former CHM240Y Students who have completed CHM151Y are not required to take Chem136H1/138H1)	CHM220H1 OR CHM222H1 Or former CHM225Y1	MAT135H1 + 136H1 Or 137Y1 Or former MAT135Y1 or 136Y1	STA220H1 OR STA288H1 Or PCL376H1 Or PSY201H1 Or former STA250H1	BCH242Y1 Or BCH210H1 Or SCS2472 (Online)	PSL201Y1 Or PSL300H1 + 301H1 Or former PSL321Y1 Or former PSL302Y1 Or SCS2159 (online)
Toronto (at Mississauga)	BIO152H5+153H5	CHM110H5 + 120H5 Or former CHM140Y5	CHM242H5 + 243H5	JCP221H5 Or former CHM221H5	NEW: MAT132H5 + 134H5	STA220H5 Or STA215H5	Bio206H5 Or CHM361H	BIO210Y5

University	Introductory/General Biology Minimum of 2 terms/semesters	Introductory/General Chemistry Minimum of 1-2 terms/semesters – labs required	Organic Chemistry Minimum of 2 terms/semesters-labs required	Physical Chemistry Minimum of 1 term/semester	Calculus Minimum of 2 terms/semesters	Statistics Minimum of 1 term/semester	Biochemistry Minimum of 1-2 terms/semesters	Human Physiology
					Or MAT 135H5 + 136H5 Or MAT137Y5 Or former: MAT134Y5, or 135Y5, or 132Y5 or 138Y5	Or BIO360H5 Or PSY201H5		
Toronto (at Scarborough)	BIOA01H3+A02H3 Or former BGYA01H3 + A02H3 Or BGYA01Y3	CHMA10H3+A11H3 Or former CHMA01Y Or former CHMA02Y	CHMB41H3 + CHMB42H3 Or CHMB43Y3	CHMB20H3 Or CHMB23H3	MATA30H3 + A36H3 recommended Or MATA31H3 + A37H3 Or former MATA26Y Note: MATA29H3 + A35H3 is NOT acceptable Former MATA29Y is NOT acceptable	STAB22H3 Or STAB23H3 Or PSYB07H3	CHMB62H3 Or BIOC12H3 Or BIOB10Y3 Or BIOB10H3 + 11H3 Or former BGYB10Y3 Or former BGYB10H3 + BGYB11H3 Or former BGYC12H	BIOC32H3/BIOB34H3/former BIOB30H3 + BIOC33H3/ BIOC34H3 Or former BGYB30H3 + BGYC33H3/BGYC34H3
University of Ontario Institute of Technology (Ontario Tech University)	Biol 1010U+1020U	CHM1010U +1020U	Chem2020U +2120U Or former Chem 3020U	Chem2040U or 3140U	MAT1010U (or 1000U)+1020U	Stat 2010U or 2020U	Biol 2080U Or former Biol2040U	HLSC1200U + 1201U
Trent	Biol 1020H+1030H Or former Bio 101	Chem1000H + 1010H Or former Chem 100	Chem2100H + 2110H	Chem3520H Or Chem 2500H Or former Chem2510H	MATH1110H + 1120H Or former Math 1100Y or 1101Y Or former 110	Math2560H Or PSYC2019H OR GEOG-Biol-Ersc 2080H Or Former PSY2016H	Chem-Biol /Biol-Chem2300H	BIOL 1051H
Waterloo	Any two of : BIOL 120, 130, 239, 240 Or, the former BIOL 110 or	Chem120 +120 lab +123+123 lab Or former 121+121 lab +125+125 lab	Chem264 +265 +265 lab Or Chem266 +266 lab +267 +267 lab	Chem254	Math 127 + 128 Or 137 + 138 Or 147 + 148 Or former Math 107 +	Stat202 Or former Stat 232	Chem237 or 233	BIO273 + 373

University	Introductory/General Biology Minimum of 2 terms/semesters	Introductory/General Chemistry Minimum of 1-2 terms/semesters – labs required	Organic Chemistry Minimum of 2 terms/semesters- labs required	Physical Chemistry Minimum of 1 term/semester	Calculus Minimum of 2 terms/semesters	Statistics Minimum of 1 term/semester	Biochemistry Minimum of 1-2 terms/semesters	Human Physiology
	112 may be used in combination or with any of the above Or the former 139 or 140 may be used in combination or with 120 or 130				108			
Western U (Univ of Western Ontario)	Biology 1001a + 1002b Or 1201a + 1202b Or, former Biology 1222 or 1223 Or former 022 or 023 [Biology 1225 and 1229f/g are NOT acceptable]	Chemistry 1301a/b + 1302a/b Or former Chemistry 1100a/b + 1200b Or former Chemistry 1050 Or former 020 or 023	Chem 2273A + 2283G OR Chem2213a/b +2223b	Chem2214a/b Or Chem 2374a	(Calculus 1000a/b or former 1100a/b) + (1501a/b or 1301 a/b) Or former Math 050a/b + (051a/b or 081a/b) MATH1201, 1225 and Former Math 030 are NOT acceptable	Stat Sci 1024a/b Or 2035 or 2037a/b Or former 2122a/b Or Biology 2244a/b Or Stats 2244a/b	BCHM2280a Or BCHM2288a	Physl 1020/1021/2130/3120 Or former Physl 020/130/021/312
Wilfrid Laurier	BI 110+111 Or former BI 116+117 Or former 118+119 Or former BI100 or 101 or 102	CH110 + 111	CH202 + 203	CH212	MA103 (or 110* or former 105) + MA104 Or (MA100 + 101) + MA 104	MA141 Or MA241 Or former MA240 Or PS296	CH250	KP222 (or HN220) + HN320 Or HS202 + 204 (Brantford campus) Or former BI216 (or HE211) +BI 217
Windsor	BIOL1111 + 1101 Or former 55-140 + 141	CHEM1100 + 1110 Or former Chem59-140 + 59-141	Chem2300 + 2310 Or former 59-230 + 235	CHEM2400 Or former 59-240	MATH1720/1760 + 1730 Or former 62-139/62-140 + 62-141, or former 62-110 + 62-111	STAT2910 Or former 65-205	BIOC2010 Or BIOC 2015 Or former 59-261/263	BIOL2040 + 2050 Or former BIO 55-204 + 205
York	SC/Biol1000 3.0 + 1001 3.0	CHM1000 3.0 + 1001 3.0	SC/Chem 2020 3.0 + 2021	SC/Chem2011 3.0	Math 1013 3.0 + 1014	SC/Math 1131 3.0	SC/Biol/Bchm2020 4.0	Kines 2011 3.0 (or

University	Introductory/General Biology Minimum of 2 terms/semesters	Introductory/General Chemistry Minimum of 1-2 terms/semesters – labs required	Organic Chemistry Minimum of 2 terms/semesters- labs required	Physical Chemistry Minimum of 1 term/semester	Calculus Minimum of 2 terms/semesters	Statistics Minimum of 1 term/semester	Biochemistry Minimum of 1-2 terms/semesters	Human Physiology
	Or former SC/Biol 1010 6.0 OR 1410 6.0	Or former 1000.06 Or former 1010.06	3.0 Or former SC/Chem2020 6.0		3.0 Or 1300 3.0 + 1310 3.0 Or GL Math 1930 3.0 + 1940 3.0 Or former Math1000 3.0 + 1010 3.0 (Math 1505 is NOT acceptable)	Or 1532 3.0 Or GL/Math 1610 3.0 Or Math 2565 3.0 Or former Math 2560 3.0 Or SC/Biol2060 3.0 Or PSY2021 3.0 Or HH/Kine 2050 3.0	Or Biol/Bchm2020 3.0 Or SC/Chem2050 4.0	former 3011 3.0) +3012 3.0 OR HH/IHST1001 + 1002 OR BIOL3060 4.0 + 3070 4.0



UNIVERSITY OF TORONTO
LESLIE DAN FACULTY OF PHARMACY

Doctor of Pharmacy (PharmD) APPLICATION WORKSHEET

INSTRUCTIONS for September 2020 admission

Deadline for submission of the online PharmD application:

Friday, January 10, 2020 at 11:59 p.m. EST

IMPORTANT NOTICE TO ALL PROSPECTIVE APPLICANTS

- This worksheet is intended only to assist you in compiling and organizing all of the information required for the online application; it is NOT an application form and will NOT be accepted by the Faculty in place of the official online application.
- The official PharmD application is an ONLINE application and is available by mid-September of each year from this website. A downloadable paper version of the application is not available.
- To submit an online application you will require an e-mail address.
- To complete your application fee payment online, you will require a valid credit card (VISA or MasterCard). The discounted 'early bird' application fee, up to and including Dec 2, 2019, is \$250 CAD. After Dec 2, and up to the final deadline of January 10, 2020, the application fee is \$300 CAD. Note the application fee is non-refundable and non-transferable.

PREPARING FOR YOUR ONLINE APPLICATION

- ✓ This printable handbook includes this two-page instruction sheet, 7 worksheet pages plus 5 pages of 'Guidelines for Completing the Required Subjects Review Sheet'
- ✓ If you have attended a Canadian university please check the listings on the table given in the section at [Examples of Acceptable Courses at Canadian Universities](#) - this table provides examples of acceptable course codes at all Ontario and some non-Ontario post-secondary institutions.
- ✓ If you have attended a university outside Ontario (including outside Canada) please review the '[Information for Candidates who have Studied Outside Ontario \(Non-Ontario and International\)](#)' section, as well as the [Academic Requirements](#) section of the website and the [Additional Information About Subject Requirements](#) section of this document to help you determine which of your courses will meet each subject requirement.
- ✓ You will need to know the applicable course codes and your grades (if issued) to complete the 'Required Subjects Academic Review' section. **You must include at least one entry for each of the subjects listed on the chart including courses already completed, currently in progress or planned.** Courses must be completed in time for final transcripts to reach our office no later than final transcript deadline (May 29, 2020).
- ✓ Compile and organize all information asked for on the worksheet to ensure that when you apply online all information submitted will be complete and accurate.
- ✓ Remember: In addition to preparing for and submitting your online PharmD application you must register for the Pharmacy College Admission Test (PCAT) via the PCAT website (www.PCATweb.info) if you do not

have previous valid scores. Note that test administrations between January 2016 and January 2020 are valid for the 2020 admission cycle; the February 2020 test dates are not valid for admission in September

2020. The PharmD application and the PCAT application are two separate applications; review the 'PCAT' section of this website for details.

- ✓ View the 'Interview' section of this website for details.

BEFORE YOU APPLY ONLINE BE SURE YOU HAVE:

- A valid and reliable e-mail address
 - This will be used to provide an enabling PIN number for your application.
 - This will also be used as our continuing means of communicating with you.
- A valid credit card (VISA or MasterCard) number and expiry date.
- All required information as requested on this 'Application Worksheet'.

AFTER YOU APPLY

- ✓ Print the 'Application Process' section of the website and request that all documents, transcripts and test results are sent from the applicable schools/testing agencies as required by the applicable deadlines.
- ✓ Ensure, if you have not already done so, that you review the PCAT website and register for and write the Pharmacy College Admission Test (PCAT). The regular registration deadline for the January 2020 PCAT administrations is November 1, 2019 and the FINAL (late) registration deadline is December 18, 2019.

It is crucial that all applicants familiarize themselves with the full details of the admissions requirements, deadlines and procedures as outlined on the Leslie Dan Faculty of Pharmacy website. The Faculty will not make allowances for applicants who do not comply with requirements and/or procedures.

**2020 Application Worksheet for the PharmD Program, Leslie Dan Faculty of Pharmacy,
University of Toronto**

This worksheet is for information only and is NOT an official application form. The online application, available by mid-September of each year, must be submitted. In preparation for your online application, complete the information on this worksheet. All information on this worksheet will be required in the electronic online application. Only applications submitted electronically by the deadline will be considered.

Online Application Deadline: Friday, January 10, 2020 at 11:59 p.m. EST

The name below is the complete name by which I am legally and correctly known. I understand that if I have not previously applied to or registered at the University of Toronto, this name will be officially recognized in records of the University of Toronto and it will not be changed without a formal verification. I understand that if I have previously applied to or registered at the University of Toronto and the name on this form is other than that by which I am known in the records of the University of Toronto, I must complete a 'Change of Name' form.

Last name _____

First Name _____

Middle name/s (if any) _____

Gender: Male [] Female []

Title: Mr. [] Miss [] Mrs. [] Ms. [] Dr. [] Other []

Date of Birth: Day _____ Month _____ Year _____

University of Toronto Student Number (if any) _____

PCAT CID (assigned by the testing agency) _____

Permanent Address (indicate full address with country)

Home Phone: () _____

Other Phone: () _____

Mailing Address (Complete this section if different from the permanent address)

Home Phone: () _____

Other Phone: () _____

This mailing address is valid from _____ to _____
day/month/year day/month/year

E-Mail Address: _____

Status in Canada:

- Canadian Citizen
- Permanent Resident (landed immigrant)
- Student Authorization/Student Visa
- Refugee
- Other

Country of Citizenship: _____

If not born in Canada, date of arrival in Canada _____
month year

First Language: English French Other

If your first language is other than English, how many years have you successfully studied full-time in an institution where English is the medium of instruction in a country where the dominant language is English?
Number of years country

Applicants whose first language is other than English, and who have studied for less than 4 years full-time in an English language medium, in a country where the dominant language is English, will be required to submit proof of English facility by submitting acceptable scores from one of the recognized tests of English facility.

Interviews

Rank the interview dates (preference #1 to 3) from the following options. (Note that on the actual online application you will be given the opportunity to opt out of a date due to religious observances or imperative personal commitments).

Saturday, March 28, 2020

Sunday, March 29, 2020

Saturday, May 9, 2020

Applicants who meet minimum academic and PCAT requirements will be selected to attend on ONE of the above dates.

Educational Institutions Attended

Secondary School(s) Attended

Institution Name	Country & Province/State & city	From Date (Month/Yr)	To Date (Month/Yr)
_____	_____	_____	_____
_____	_____	_____	_____

Post-Secondary Institutions Attended

Full disclosure is required. You must list ALL post-secondary institutions at which you have ever been registered, or will be registered during the current admission cycle, including colleges and universities. List in order of attendance, most recent first.

Institution Name	Country & Province/State & City	From Date (Month/Yr)	To Date (Month/Yr)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Note: on the actual online application, for each listed post-secondary institution you will be asked if a degree has been conferred and, if yes, you will be prompted to enter the degree designation (e.g. BSc, MSc, BEd, PhD etc.)

How many years of university level study will you have completed by June 2020? _____

Have you previously completed one or more degree(s) Yes No

If you are currently enrolled in post-secondary studies, will this lead to completion of degree requirements (either for a first or subsequent degree program) by June 2020? Yes No

Failed University Courses

Have you failed ANY university level courses? Yes No

If yes, please list them _____

Repeated University Courses

Have you repeated ANY university level courses? Yes No

If yes, please list them _____

Provide an explanation for repeating courses where a passing grade had originally been obtained. (No explanation is necessary if a course was repeated due to a failing grade).

Required Subjects Review Sheet (Worksheet)

Refer to the 'Guidelines for Completing the Required Subjects Review Sheet' (page 10) before proceeding.

Please note that the format of entries on the actual online application is not exactly as that shown below. The actual application will include pull-down menus from which course codes and dates may be chosen.

Subject course No. and course title(s)	Grade(s)	Prov/State Country	Institution Name	Year taken
EXAMPLE: CHM10140 + 1050 Gen Chm 1 and II	77% + 65%	Ont, Canada	U of Guelph	2016-17
English (Literature/Composition) (One term/semester)				
Physics (required only at grade 12 level)				
Biology (2 terms/semesters)				
Biochemistry (1 term/semester)				
Human Physiology (usually 2 terms/semesters required)				
Introductory Chemistry (1-2 terms/semesters with labs)				
Organic Chemistry (2 terms/semesters with labs)				
Physical Chemistry (1 term)				
Statistics (1 term)				
Calculus (two terms/semesters)				
Humanities/Social Science (two terms/semesters)				

- 1) Do you wish to be considered for one of the recruitment spaces in the Graduate house residence? Yes No

Note: checking 'yes' does NOT guarantee space in Graduate House. A very limited number of recruitment spaces are available in this residence which will be allocated strictly to highest ranked candidates.

- 2) Have you applied for admission to the Leslie Dan Faculty of Pharmacy at U of T in a previous year? Yes No

If yes, indicate the last admission cycle for which you applied, e.g. Sept 2019 _____

- 3) How did you hear about our PharmD program? Please check one or more of the following:

- | | |
|--|---|
| <input type="checkbox"/> Brochure/flyer (from where?) _____ | <input type="checkbox"/> Live presentation |
| <input type="checkbox"/> Career fair (where?) _____ | <input type="checkbox"/> U of T Fall campus Day |
| <input type="checkbox"/> Word of mouth (friends, family, employer) | <input type="checkbox"/> Guidance/career counsellor |
| <input type="checkbox"/> Leslie Dan Faculty of Pharmacy website | <input type="checkbox"/> Summer Mentorship program |
| <input type="checkbox"/> Other (please specify) _____ | |

Statement:

I understand that if any information contained in this application and in my supporting documents are determined to be false or misleading, concealed or withheld, my application may be invalidated and this could result in its immediate rejection or in the revocation of an offer of admission or registration. If these circumstances are discovered after an offer of admission has been sent, that offer may be revoked and if these circumstances are discovered after the offer of admission has been accepted, the applicant may be withdrawn from the Program and registration if any will be cancelled and terminated at the absolute discretion of the Leslie Dan Faculty of Pharmacy.

An applicant so discovered will not be considered for admission to the Leslie Dan Faculty of Pharmacy and this information will be shared within the University of Toronto and/or other organizations or persons in support of professional ethical expectations and academic integrity. The determination of whether an application contains false or misleading information or concealed or withheld information is solely within discretion of the Leslie Dan Faculty of Pharmacy.

I also certify that the name at the top of this form is the complete name by which I am legally and correctly known. If the name on my documents is not identical to the name on my application, I

understand that the documents will not be added to my record unless I can provide proof of name change if the documents show different names.

I acknowledge that all application materials submitted become property of the University of Toronto and that the application fee is non-refundable and non-transferable.

Method of Payment

The discounted 'early bird' application fee of \$250 CAD is applicable for applications submitted by Dec 2, 2019. The fee for applications submitted after Dec 2, and up to the final application deadline of January 10, 2020 is \$300 CAD. The application fee is to be paid online by credit card (VISA or MasterCard). This fee is non-transferable and non-refundable.

This worksheet is for information only and is NOT an official application form. Do not submit this form. You must go to our website <https://applicant.phm.utoronto.ca/> and access the online application when this feature becomes available.

Be sure you have:

- a valid credit card number and expiry date
- A valid and reliable e-mail address
- All information on this worksheet compiled and organized to ensure that when you apply online all information submitted will be complete and accurate

Online application Deadline: Friday, January 10, 2020 at 11:59 p.m. EST

Apply at: <https://applicant.phm.utoronto.ca/>

Guidelines for Completing the 'Required Subjects Review Sheet'

To complete this section of the online application you will need to know the course codes as well as the titles and grades (if available) for all courses you are using to satisfy the 11 specific required subjects. You will also need to enter the institution at which each course was taken along with the applicable dates. So that you may accurately enter the required information you will need:

1. **Your secondary school transcript** if you using Grade 12 Physics to meet the Physics requirement
 - You will need your Grade 12U Physics grade (or equivalent)
2. **Your university transcript**
 - You will need a record of the course codes and grades completed to date as well as any required courses in which you are currently registered or will be commencing as of January.

Important notes:

This section is to be used only to enter the courses that you are using to meet the specific subject requirements; it is not used to calculate your overall average. **Enter only the courses relevant to satisfying each specific subject requirement.** After you submit your application, you will have access to a secure Applicant website upon which you will be asked to enter additional transcript information.

- Although we are happy to provide assistance and guidance if you have specific questions related to meeting our academic requirements, we are unable to provide a formal full assessment prior to the time an application is submitted. You must use the information provided in this document, and in other relevant sections of our website (which can be accessed through the [Academic Requirements](#) and the [Additional Information About Subject Requirements](#) sections), to help you to determine the suitability of your courses. Should you need guidance ensure you submit your inquiries well in advance of the application deadline.
 - It is necessary to make at least one entry for each listed subject (*mandatory fields) to enable you to proceed to the next step. If you are uncertain as to whether one or more of your courses will meet our requirements, list them and the Faculty will determine, where possible, whether the course(s) meet the minimum requirement(s) after the application is submitted. If you list any courses which are not acceptable the Faculty will replace them with other courses, where possible, as your transcripts are received and reviewed.
 - If any of your courses are in progress, or if the final grade has not yet been issued or if the course will be commencing in January enter 'IP' (for 'in progress') in the 'grade' column.
 - If you received university transfer credit for any of the courses you wish to use to satisfy subject requirements, enter the course data from the institution at which the course(s) were completed. For example, if you completed GCE, IB or AP credits you would list your courses as 'GCE' or 'IB' or 'AP' (as appropriate) and would indicate the institution at which you actually completed the courses (not the institution which gave you university transfer credit). In the 'Grade' column enter the grades as they were originally issued, such as A, B, C for GCE credits, or 4 or 5 for IB or AP credits.
-

- If you have attended a Canadian university, refer to the PDF document given in the [Examples of Acceptable Courses at Canadian Universities](#) section of our website for a listing of many of the known acceptable university level courses. This includes examples for all Ontario universities and some non- Ontario post-secondary institutions.
- If you studied outside Canada (including the U.S.A.) you may be required to submit detailed course outlines, once your application is submitted. Please have these ready in the event they are required.

Guidelines - Required Subjects

ENGLISH

- You must list a university level English (Composition/Literature) credit or equivalent from another educational system (e.g. IB Higher Level, AP, GCE 'A' level etc.). Refer to the Additional Information about Subject Requirements section for details of this requirement including restrictions.
- Courses such as Report or Technical Writing, Business Communications, or those focussing on Social Media or Drama (Theatre/Performance), or ESL courses **cannot** be used.
- Note that an English facility test score (such as TOEFL) does **not** replace the English subject requirement, nor does the English subject requirement replace the English facility requirement for applicants for whom proof of English facility is applicable; they are two separate requirements.
- Enter the grade in the 'Grade' column as it appears on your transcript (e.g. enter either a numerical or letter grade exactly as shown on your transcript).
- If the course is still in progress or the final grade has not yet been issued, or the course commences in January, enter 'IP' in the 'Grade' column.

PHYSICS

- You may list secondary school grade 12U Physics (SPH4U) or an equivalent level 'Physics' credit from other educational systems. Refer to the Academic [Academic Requirements](#) section of our website for general information related to secondary school equivalencies.
 - If you did not complete an equivalent secondary school credit you may use a university level credit (two terms/semesters required). No preference is given to university level courses.
 - If you list a university level credit, it is necessary to list only introductory (first year) courses.
 - University Physics courses offered primarily for Arts/Humanities students to fulfill science breadth requirements will not meet the requirement.
 - Enter the grade in the 'Grade' column as it appears on your transcript (e.g. enter either a numerical or letter grade exactly as shown on your transcript).
 - If the course is still in progress or the final grade has not yet been issued, or the course commences in January, enter 'IP' in the 'Grade' column.
 - In the 'Level' column indicate whether the course is a secondary school credit or university credit by clicking the appropriate choice.
-

BIOLOGY

If you attended an Ontario university, you may use the pull-down menu options in the 'Course No.' column of the online application to select the course(s) you have completed or are in the process of completing. Note that if your university is semestered and you took two semesters to satisfy this requirement, you must use the 'Add' button to add the second semester separately. If your course(s) are not listed in the pull-down menu options, or if you did not attend an Ontario university, use the 'Other' field and type in the course number.

- You must list a university level course (secondary school level is not acceptable).
- You must list a full-credit equivalent, i.e. two terms/semesters.
- List introductory (first year) Biology courses; it is not necessary to list upper year courses (if your upper year credits may be relevant to the Biochemistry subject requirement they should be entered there instead).
- Courses such as 'General Biology', 'Organisms in Their Environment', and 'Cell Biology' are examples of courses that will meet the requirement (titles of courses vary depending on the university). We will accept a broad range of courses in meeting this requirement; exceptions are Anatomy and Physiology courses which may not be used (note: Human Physiology is a separate requirement).
- Enter the grade in the 'Grade' column as it appears on your transcript (e.g. enter either a numerical or letter grade exactly as shown on your transcript).
- If the course is still in progress, or the final grade has not yet been issued, or the course commences in January, enter 'IP' in the 'Grade' column.
- If you received a university transfer credit for the course you wish to use to satisfy this requirement you must list the original course, institution and grade upon which transfer credit was based.

BIOCHEMISTRY

If you attended an Ontario university, you may use the pull-down menu options in the 'Course No.' column of the online application to select the course(s) you have completed or are in the process of completing. Note that if your university is semestered and you took two semesters to satisfy this requirement, you must use the 'Add' button to add the second semester separately. If your course(s) are not listed in the pull-down menu options, or if you did not attend an Ontario university, use the 'Other' field and type in the course number.

- You must list a university level course
 - Minimum of one term/semester. At some universities, two semesters may be required to cover required content. If you have completed (or you are in the process of completing) more than one Biochemistry course you may list each.
 - Enter the grade(s) in the 'Grade' column as they appear on your transcript (e.g. enter either a numerical or letter grade exactly as shown on your transcript).
 - If the course is still in progress, or the final grade has not yet been issued, or the course commences in January, enter 'IP' in the 'Grade' column.
 - If you received a university transfer credit for the course you wish to use to satisfy this requirement you must list the original course, institution and grade upon which transfer credit was based.
 - Labs are not required.
-

HUMAN PHYSIOLOGY

- You must list a university level course.
- Acceptable courses are those which cover all major systems in Human Physiology including Neuro, Endocrine, Cardiac, Respiratory, Digestive, Reproductive, Urinary, Musculoskeletal, Fluids and Electrolytes.
- Usually two terms/semesters are required to fulfill this requirement (e.g. Physiology I and II).
- Enter the grade in the 'Grade' column as it appears on your transcript (e.g. enter either a numerical or letter grade exactly as shown on your transcript).
- If the course is still in progress, or the final grade has not yet been issued, or the course(s) commence in January, enter 'IP' in the 'Grade' column.
- Labs are not required

CHEMISTRY

If you attended an Ontario university, you may use the pull-down menu options in the 'Course No.' column of the online application to select the course(s) you have completed or are in the process of completing. Note that if your university is semestered and you took two semesters to satisfy one or more of the Chemistry subject requirements, you must use the 'Add' button to add the second semester separately. If the labs are listed separately on your transcript, you must use the 'Add' button to add the labs separately (for Intro and Organic Chemistry). If your course(s) are not listed in the pull-down menu options, or if you did not attend an Ontario university, use the 'Other' field and type in the course number.

- You must list university level courses (secondary school level is not acceptable).
 - **Introductory Chemistry** - list a minimum of one to two terms/semesters plus labs if offered separately from the course. At universities where Intro/General Chemistry is offered as two half-credit courses (each one term/semester) both terms/semesters must be listed to meet this requirement. Minimum of 18-20 lab hours required for the Intro Chemistry requirement.
 - **PLUS Organic Chemistry** - minimum of two terms/semesters (Organic Chemistry I and II) plus labs if offered separately from the course. Minimum of 40 lab hours required for the Organic I/II combination.
 - **PLUS Physical Chemistry** (Thermodynamics and Kinetics) - minimum of one term/semester, although at some institutions 2 terms/semesters may be required to cover required material. Must be a second or upper year course. Although many first year courses include an introduction to Thermodynamics/Kinetics it is a course at a second or higher year level which builds on the year 1 material which must be taken to meet this requirement. Labs are not required.
 - If you attend a university where two semesters of General/Introductory Chemistry are offered in first year you must complete both terms and would normally need a total of 5 half-credit courses (or 2.5 full-credit equivalent courses) to complete the full Chemistry requirement (Introductory, Organic and Physical chemistry combination). Where only one term/semester of General/Introductory Chemistry is offered in first year, and Organic I is offered as a first year course, the Chemistry requirement normally can be completed within 4 half-credit courses (or 2.0 full-credit equivalent courses).
 - Enter the grade(s) in the 'Grade' column as they appear on your transcript (e.g. enter either a numerical or letter grade exactly as shown on your transcript).
 - If the course(s) is/are still in progress, or the final grade has not yet been issued, or the
-

course(s) commence in January, enter 'IP' in the 'Grade' column.

- If you received a university transfer credit for any of the courses you wish to use to satisfy the Chemistry requirements you must list the original course(s), institution(s) and grade(s) upon which transfer credit was based.

CALCULUS

If you attended an Ontario university, you may use the pull-down menu options in the 'Course No.' column in the online application to select the course(s) you have completed or are in the process of completing. Note that if your university is semestered and you took two semesters to satisfy this requirement, you must use the 'Add' button to add the second semester separately. If your course(s) are not listed in the pull-down menu options, or if you did not attend an Ontario university, use the 'Other' field and type in the course number.

- You must list a university level course (secondary school level is not acceptable).
- You must list a full-credit equivalent, i.e. two terms/semesters.
- Enter the grade in the 'Grade' column as it appears on your transcript (e.g. enter either a numerical or letter grade exactly as shown on your transcript).
- If the course is still in progress, or the final grade has not yet been issued, or the course(s) commence in January, enter 'IP' in the 'Grade' column.
- List your introductory (first year) university Calculus course(s); it is not necessary to list upper year Calculus credits.
- Your course(s) must serve as a pre-requisite for upper/advanced level Calculus courses.
- Courses which are 'terminal' (i.e. do not serve as a pre-requisite for any further Calculus courses) do not meet the requirement.
- Bridging or preparatory courses (i.e. courses offered for students who lack the essential high school background and do not serve as a pre-requisite for the upper level Calculus courses) do not meet the requirement.
- Your course must be a traditional Calculus course which covers differentiation and integration.
- You may **not** substitute other math credits such as Pre-Calculus, Statistics, Algebra or Geometry to satisfy the Calculus requirement or to fulfill part of the Calculus requirement.
- If you received a university transfer credit for the course you wish to use to satisfy this requirement you must list the original course, institution and grade upon which transfer credit was based. *Note, however, that GCE and AP credits cannot be used alone to meet this subject requirement.*

STATISTICS

If you attended an Ontario university, you may use the pull-down menu options in the 'Course No.' column of the online application to select the course(s) you have completed or are in the process of completing. Note that if your university is semestered and you took two semesters to satisfy this requirement, you must use the 'Add' button to add the second semester separately. If your course(s) are not listed in the pull-down menu options, or if you did not attend an Ontario university, use the 'Other' field and type in the course number.

- You must list a university level course (secondary school level is not acceptable).
 - Minimum of one term/semester in Statistics. Courses which cover other material and include statistics only as a small component of the course cannot be used.
 - Although most Statistics courses begin with the prefix 'Math or Stat' for those in science programs, statistics courses from other disciplines (e.g. Psychology, Economics, Sociology etc.) may, in many cases, be used to meet the requirement.
-

- Enter the grade(s) in the 'Grade' column as they appear on your transcript (e.g. enter either a numerical or letter grade exactly as shown on your transcript).
- If the course is still in progress, or the final grade has not yet been issued, or the course commences in January, enter 'IP' in the 'Grade' column.
- First year level or upper year courses are acceptable.
- If you received a university transfer credit for the course you wish to use to satisfy this requirement you must list the original course, institution and grade upon which transfer credit was based.

HUMANITIES or SOCIAL SCIENCE

- You must list a university level course (high school level is not acceptable).
- You must list a full-credit equivalent, i.e. two terms/semesters.
- If you are presenting two half-credit courses they may be from different subject areas.
- Courses may be introductory or advanced level courses
- Refer to the Additional Information about Subject Requirements section of the Handbook for further important details including examples of acceptable subject areas and restrictions. Note: Language courses are not considered in fulfillment of this requirement.
- Enter the grade in the 'Grade' column as it appears on your transcript (e.g. enter either a numerical or letter grade exactly as shown on your transcript).
- If the course is still in progress, or the final grade has not yet been issued, or the course commences in January, enter 'IP' in the 'Grade' column.

If you received a university transfer credit for the course you wish to use to satisfy this requirement you must list the original course, institution and grade upon which transfer credit was based.
