Biochemistry Prerequisites for Schulich Dentistry

2020-2021 Application Cycle

Dentistry requires all incoming students to have a thorough knowledge of basic biochemical principles and concepts which must include:

- protein structure
- protein function including enzymology
- interconnectedness and regulation of the central pathways of energy metabolism
- DNA replication and repair
- transcription
- translation
- basic molecular biology techniques

To satisfy the biochemistry prerequisite requirement, all applicants must successfully complete an approved half-year course (3 credit hours) by April 30th of the application cycle in which they apply and earn a pass or credit designation. In some cases more than a half-year of approved courses may be required to cover all the biochemistry content our Doctor of Dental Surgery program requires. If more than once course is listed, then a pass or credit designation must be attained in each course listed in the combination.

Since individual universities may alter their course offerings or the content of a course, this list is subject to change without notice. If your home university does not offer a listed course, please review the list as there are other universities that have approved distance education courses.

The absence of a course from this list does not necessarily imply that it is deficient or inadequate. If your university offers a biochemistry course, or course combination, covering the above mentioned subject areas in detail, please email the Admissions Office to request a review by Western University. You must indicate in your email an explanation of what course or course combinations you wish to have considered and must attach a detailed course syllabus that includes course content, textbook and grading information for each course mentioned. In cases where the request to review includes a course that is not on the approved list to be considered with a course at that institution that is on the approved list you must still submit the syllabus of the already approved course. Please note:

- There may be courses listed that are not offered but they remain on the list as they are approved courses as long as they are not more than 10 years old. If there is a is continued course that still appears on this list that is more than 10 years old, please email the Admissions Office with the relevant information so we can update the list.

- Course reviews for future applicants take place between April and August. Only applicants who have applied in the current application cycle have course reviews completed between September and March.
### ACCEPTABLE BIOCHEMISTRY PREREQUISITES
#### FOR THE SCHULICH DENTAL PROGRAM

<table>
<thead>
<tr>
<th>INSTITUTION</th>
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| Acadia University                          | CHEM 2713                                                                                              |
| University of Alberta                      | BIOCH 200  
|                                            | BIOCH 203 + BIOCH 205  
|                                            | BIOCH 220 + Genetics 304                                                                             |
| University of Alberta – Augustana Campus   | CHE 280  
|                                            | BIO 280  
|                                            | AUBIO 380                                                                                             |
| Algoma University                          | CHMI 3016 + CHMI 3017                                                                                  |
| Ambrose University                         | BCH 297 + BCH 397                                                                                     |
| Athabasca University                       | CHEM 301                                                                                              |
| Bishop’s University                        | BIOC 211A  
|                                            | BIO 215 + BIO 360                                                                                     |
|                                            | BIO 215 + BIO 315                                                                                     |
| University of British Columbia             | BIOL 201  
|                                            | BIOL 311 + BIOL 319                                                                                   |
|                                            | BIOC 302  
|                                            | BIOC 303  
<p>|                                            | BIOC 300                                                                                              |
| University of British Columbia – Okanagan  | BIOC 304 + BIOC 305                                                                                  |</p>
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| Brock University            | BIOL 2F01  
BIOL 2P01 + BCHM 3P02  
BCHM 3P01 + BCHM 3P02  
BIOL 2P02 + HLSC 2P09  
BIOL 2P02 + BCHM 3P01 |
| University of Calgary       | BIOCHEM 341  
BIOCHEM 393 |
| Cape Breton University      | CHEM 261 (2601)  
CHEM 365 |
| Carleton University        | BIOL 2201 + BIOC 2300  
BIOL 2200 + BIOC 2300  
BIOL 2200 + BIOC 3101  
BIOL 2200 + CHEM 3401  
BIOC 2200 + BIOC 2300  
BIOC 2200 + BIOC 3101  
BIOL 2104 + BIOC 2200 + BIOC 3201  
BIOL 2104 + BIOL 2200  
BIOC 3101 + BIOC 3102  
BIOCHEM 63.310  
BIOL 61.103 + BIOCHEM 63.220 |
| Concordia University        | CHEM 271  
BIOC 2300 |
| Dalhousie University       | BIOC 1040  
BIOC 1420  
BIOC 2010  
BIOC 2200  
BIOC 2300  
MICI 2100 |
| University of the Fraser Valley | BIO 201 + BIO 202  
BIO 320 |
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<th>University of Guelph</th>
<th>BIOC 2580</th>
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<td>University of Guelph-Humber</td>
<td>KIN 2070 + SCMA 1120</td>
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| The King's University | CHEM 400 + CHEM 401  
Biol 470 + BIOL 471  
BIOL 322 + CHEM 400  
BIOL 422 + CHEM 400 |
| Lakehead University | CHEM 3251  
BIOL 3252 |
| Laurentian University | CHMI 2227E + CHMI 3226 |
| University of Lethbridge | BIOC 3010 + BIOC 3020  
CHEM 3310 + CHEM 3320  
BCHM 2000 |
| Grant MacEwan University | BICM 200 |
| University of Manitoba | CHEM/MBIO 2360  
CHEM/MBIO 2370  
BIOCHEM 277 + BIOCHEM 278  
BIOCHEM 060.235(F)  
BIOCHEM 002.235(F) |
| McGill University | BIOI 200 + BIOI 201  
BIOI 200 + ANAT 212  
BIOI 200 + BIOI 212  
BIOC 212 + BIOI 300  
MOL BIOL 200  
FDSC 211 + ANSC 234  
LSCI 211 + ANSC 234  
177-200A  
NUR1 200  
**Any 2 of these courses:** 177-201B / 507-212B / 507-311A / 507-312B |
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| McMaster University         | HTH SCI 2E03 + HTH SCI 3SB3
|                             | HTH SCI 1A06
|                             | HTH SCI 1AA3 + HTH SCI 1BB3
|                             | HTH SCI 2E03 + BIOCHEM 3G03
|                             | HTH SCI 2E03 + BIOCHEM 3H03
|                             | HTH SCI 2E03 + BIOCHEM 3D03
|                             | ISCI 2A18 + BIOCHEM 3D03
|                             | BCHM 2L06 + ISCI 2A18
|                             | BIOL 1A03
|                             | BIOCHEM 2A06
|                             | BIOCHEM 3G06
|                             | BIOCHEM 2EE3 + BIOCHEM 3G03
|                             | BIOCHEM 2EE3 + BIOCHEM 3H03
|                             | BIOCHEM 2EE3 + BIOCHEM 3N03
|                             | BIOCHEM 2EE3 + HTH SCI 2E03
|                             | BIOCHEM 2EE3 + HTH SCI 2D06
|                             | BIOCHEM 2EE3 + HTH SCI 1AA3
|                             | **Any 2 of these courses:** BIOCHEM 2EE3 / BIOCHEM 2B03 / BIOCHEM 2BB3 |
| Memorial University         | BIOC 2101 + BIOC 2100
|                             | BIOC 2101 + BIOC 2250
| University of Moncton       | BICH 2023 + BICH 2623
|                             | BICH 2023 + BICH 3843
| University of Montreal      | PHM 1140
|                             | BCM 1531
| Mount Allison University    | BIOC 2001
| Mount Royal College         | BCEM 3341
|                             | BCEM 2201 + BCEM 3202
| Mount St. Vincent University | CHEM 3501
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| University of New Brunswick, Fredericton         | BIOL 2023  
|                                                 | BIOL 2033  
| University of New Brunswick, St. John            | BIOL 2065 + BIOL 2245  
|                                                 | BIOL 2065 + BIOL 3132  
| Niagara University                               | CHE 345 + CHE 346  
| Nipissing University                             | BIOL 2206 + BIOL 3306  
| University of Northern BC                        | CHEM 204  
|                                                 | BCMB 306 + BIOL 311  
| Okanagan University College                      | BIOL 221  
|                                                 | BIOL 311  
| Ontario Tech University (UOIT)                   | BIOL 2020U + BIOL 4070U  
|                                                 | BIOL 2080  
|                                                 | BIOL 2020U + BIOL 2040U + BIOL 3010U  
|                                                 | HLSC 2110U  
| University of Ottawa                             | BCH 1100  
|                                                 | BCH 1500  
|                                                 | BCH 2140  
|                                                 | BCH 2540  
|                                                 | BCH 2333  
|                                                 | BCH 2733  
| University of Prince Edward Island               | CHEM 351  
|                                                 | CHEM 352  
|                                                 | CHEM 353  
| Queen’s University                               | BIOL 205 + BIOL 234  
|                                                 | BIOL 205 + BIOL 334  
|                                                 | CHEM 323  
|                                                 | BCHM 310  

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|                                                 | BIOL 2033  
| University of New Brunswick, St. John            | BIOL 2065 + BIOL 2245  
|                                                 | BIOL 2065 + BIOL 3132  
| Niagara University                               | CHE 345 + CHE 346  
| Nipissing University                             | BIOL 2206 + BIOL 3306  
| University of Northern BC                        | CHEM 204  
|                                                 | BCMB 306 + BIOL 311  
| Okanagan University College                      | BIOL 221  
|                                                 | BIOL 311  
| Ontario Tech University (UOIT)                   | BIOL 2020U + BIOL 4070U  
|                                                 | BIOL 2080  
|                                                 | BIOL 2020U + BIOL 2040U + BIOL 3010U  
|                                                 | HLSC 2110U  
| University of Ottawa                             | BCH 1100  
|                                                 | BCH 1500  
|                                                 | BCH 2140  
|                                                 | BCH 2540  
|                                                 | BCH 2333  
|                                                 | BCH 2733  
| University of Prince Edward Island               | CHEM 351  
|                                                 | CHEM 352  
|                                                 | CHEM 353  
| Queen’s University                               | BIOL 205 + BIOL 234  
|                                                 | BIOL 205 + BIOL 334  
|                                                 | CHEM 323  
|                                                 | BCHM 310  

Revised September 2020
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<td>Queen's University (cont'd)</td>
<td>BCHM 315 + BIOL 205</td>
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<td>BCHM 315 + BIOL 218</td>
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<td>BCHM 315 + BCHM 316</td>
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<td>BCHM 315 + MBIO 218</td>
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<td>BCHM 315 + MBIO 318</td>
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<td>BCHM 315 + BCHM 218</td>
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<td>BCHM 218 + BIOL 334</td>
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<td>BCHM 218 + BCHM 270</td>
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<td>BCHM 270 + BIOL 205</td>
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<td>Red Deer College</td>
<td>BIOC 302 + BIOC 304</td>
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<td>University of Regina</td>
<td>BIOC 220</td>
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<tr>
<td>Royal Military College</td>
<td>CCE 385B + CCE 460A</td>
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<td>Ryerson University</td>
<td>CHY 204 + CHY 205</td>
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<td>CHY 204 + CHY 261</td>
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<td>CHY 205 + CHY 362</td>
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<td>CHY 205 + CKCH 225</td>
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<td>CHY 261 + CHY 361</td>
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<td>St. Francis Xavier University</td>
<td>CHEM 255</td>
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<td>St. Mary's University</td>
<td>CHEM 451</td>
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<td>CHEM 4452</td>
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<td>CHEM 3451</td>
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**INSTITUTION** | **APPROVED COURSES / COURSE COMBINATIONS**
---|---
University of Saskatchewan | BIOC 200.3  
BMSC 200.3  

Simon Fraser University | BICH 222 + BICH 221  
MBB 201 + MBB 222  
MBB 201 + MBB 231  
MBB 201 + MBB 321  
MBB 222 + MBB 242  
MBB 222 + MBB 321  

Thompson Rivers University  
(University College of the Cariboo) | BIOL 313  
BIOL 323  
BIOL 3131 + BIOL 3231  

University of Toronto | BIO 206 + BIO 215  
BIO 206 + BIO 315  
BIO 206 + BIO 361  
BIO 206 + CHM 362  
BIO 206 + NFS 386  
BIO 207 + BIO 215  
BIO 240 + BIO 241  
BIO 250Y  
BCH 242Y  
BCH 310H  
BCH 320Y  
BCH 321Y  
BCH 1422  
BCH 210 + BIO 130  
BCH 210 + BIO 230  
BCH 210 + BIO 255  
BCH 210 + PMU 199  
BCH 210 + BCH 311  
BCH 210 + BME 205H + BME 396H  
BCH 210 + BIO 206H  
CHM 261  
CHM 360Y  
CHM 361  
PHM 225 + PHM 226  

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<td>University of Toronto - Scarborough</td>
<td>CHMB 62H3&lt;br&gt; BIOC 12 + BIOC 13&lt;br&gt; BIOC 12 + BIOC 10Y&lt;br&gt; BIOC 12 + BGYB 11&lt;br&gt; BIOC 13 + BIOC 10Y&lt;br&gt; BIOC 13 + BGYB 11&lt;br&gt; BGYB10 + BGYC12&lt;br&gt; BGYB11 + BGYC13</td>
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<tr>
<td>University of Toronto - School of Continuing Studies</td>
<td>SCS 2472 (Continuing Studies)</td>
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<td>Trent University</td>
<td>BIOL 206H + CHEM 231H&lt;br&gt; BIOL 3080 + CHEM 2300&lt;br&gt; CHEM 3300&lt;br&gt; BIO 2300 + BIO 3310&lt;br&gt; CHEM 2300 + CHEM 3310</td>
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<tr>
<td>Trinity Western University</td>
<td>BIOL 384&lt;br&gt; CHEM 384</td>
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<tr>
<td>Vancouver Island University</td>
<td>BIOL 201</td>
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<tr>
<td>University of Victoria</td>
<td>BIOC 200&lt;br&gt; BIOC 300 (A + B)&lt;br&gt; BIOC 300A + BIOC 102</td>
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<td>University of Waterloo</td>
<td>CHEM 233&lt;br&gt; CHEM 237&lt;br&gt; NE 224&lt;br&gt; KIN 217</td>
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| Western University             | BIOCHEM 2280A (also offered as Distance Studies)  
|                                | BIOCHEM 2288A  
|                                | CBE 2290A/B  
|                                | CHEM 4493A/B  
| Wilfrid Laurier University    | CH 250 + CH 350  
|                                | CH 330 + CH 331  
|                                | CH 350 + BI 226 + BI 236  
| University of Windsor          | CHEM 261  
|                                | CHEM 263 + CHEM 265  
|                                | CHEM 362/363 + CHEM 365  
|                                | CHEM 362/363 + CHEM 360/361  
| University of Winnipeg         | CHEM-3502 + CHEM-3503  
| York University                | CHEM 2050  
|                                | SC/BIOL 2020  
|                                | BCHM 2020  

[https://westerncalendar.uwo.ca/Courses.cfm?SelectedCalendar=Live&ArchiveID](https://westerncalendar.uwo.ca/Courses.cfm?SelectedCalendar=Live&ArchiveID)