

Biochemistry Prerequisites for Schulich Dentistry 2021-2022 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 discontinued 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

INSTITUTION	APPROVED COURSES / COURSE COMBINATIONS
All courses with a (+) must all be taken to cover in detail the content required by our program	
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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 + 397
Athabasca University	CHEM 301
Bishop's University	BIOC 211A BIO 215 + BIO 360 BIO 215 + BIO 315 BIO 196 + BCH 210 + BCH 313
University of British Columbia	BIOL 201 BIOL 311 + BIOL 319 BIOC 302 BIOC 303 BIOC 202 + BIOC 302 BIOC 300
University of British Columbia - Okanagan	BIOC 304 + BIOC 305
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

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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
Concordia University of Edmonton	BIOCH 200 + BIOCH 340
Dalhousie University	BIOC 1040 BIOC 1420 BIOC 2010 BIOC 2200 BIOC 2300 MICI 2100 BIOC 2300 + BIOL 2030
University of the Fraser Valley	BIO 201 + BIO 202 BIO 320
University of Guelph	BIOC 2580
University of Guelph-Humber	KIN 2070 + SCMA 1120
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

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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	BIOL 200 + BIOL 201 BIOL 200 + ANAT 212 BIOL 200 + BIOC 212 BIOC 212 + BIOL 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
McMaster University	HTH SCI 2E03 + HTH SCI 3SB3 HTH SCI 1A06 HTH SCI 1LL3 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
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McMaster University, cont'd	Any 2 of these courses: BIOCHEM 2EE3 / BIOCHEM 2B03 / BIOCHEM 2BB3
Memorial University	BIOC 2101 + BIOC 2100 BIOC 2101 + BIOL 2250 BIOC 2201 + BIOL 2250 + BIOC 3206
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
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
University of Ontario Inst of Tech (UOIT)	BIOL 2020U + BIOL 4070U BIOL 2080 BIOL 2020U + BIOL 2040U + BIOL 3010U HLSC 2110U

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University of Ottawa	BCH 1100 BCH 1500 BCH 2140 BCH 2540 BCH 2333 BCH 2733 HSS 2305
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 BCHM 315 + BIOL 205 BCHM 315 + BIOL 218 BCHM 315 + BCHM 316 BCHM 315 + MBIO 218 BCHM 315 + MBIO 318 BCHM 315 + BCHM 218 BCHM 218 + BIOL 334 BCHM 270 BCHM 218 + NSCI 323 + CRSS 456
Red Deer College	BIOC 302 + BIOC 304 BIOC 302 + BIOC 305 BIOC 302 + BIOC 393 BIOC 303 + BIOC 304 BIOC 303 + BIOC 305 BIOC 303 + BIOC 393
University of Regina	BIOC 220
Royal Military College	CCE 385B + CCE 460A
Ryerson University (BCH 261 = CHY 261 and CKCH 225 = 2251)	CHY 204 + CHY 205 CHY 204 + CHY 261 CHY 204 + CHY 362 CHY 205 + CHY 261 CHY 205 + CHY 362 CHY 205 + CKCH 225

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Ryerson University, cont'd	CHY 261 + CHY 361 BCH 361 + BCH 463
St. Francis Xavier University	CHEM 255
St. Mary's University	CHEM 451 CHEM 4452 CHEM 3451
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
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University of Toronto, cont'd	CHM 261 CHM 360Y CHM 361 PHM 225 + PHM 226
University of Toronto – Scarborough	CHMB 62H3 BIOC 12 + BIOC 13 BIOC 12 + BIOB 10Y BIOC 12 + BGYB 11 BIOC 13 + BIOB 10Y BIOC 13 + BGYB 11 BGYB10 + BGYC12 BGYB11 + BGYC13
University of Toronto - School of Continuing Studies	SCS 2472 (Continuing Studies)
Trent University	BIOL 206H + CHEM 231H BIOL 3080 + CHEM 2300 CHEM 3300 BIO 2300 + BIO 3310 CHEM 2300 + CHEM 3310 *BIOL 2300 cross-listed with CHEM 2300
Trinity Western University	BIOL 384 CHEM 384
Vancouver Island University	BIOL 201
University of Victoria	BIOC 200 BIOC 300 (A + B) BIOC 300A + BIOC 102
University of Waterloo	CHEM 233 CHEM 237 (= NE 224) NE 224 KIN 217
Western University	BIOCHEM 2280A (280A) (also offered as Distance Studies) BIOCHEM 2288A CBE 2290A/B CHEM 4493A/B

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Wilfrid Laurier University	CH 250 + CH 350 CH 330 + CH 331 CH 350 + BI 226 + BI 236
University of Windsor	CHEM 261 *Now called BIOC 2010 CHEM 263 + CHEM 265 CHEM 362/363 + CHEM 365 *Now called BIOC 3130 CHEM 362/363 + CHEM 360/361
University of Winnipeg	CHEM-3502 + CHEM-3503
York University	CHEM 2050 SC/BIOL 2020 BCHM 2020