

## Physiology Prerequisites for Schulich Dentistry 2024-2025 Application Cycle

Dentistry requires all incoming students to have a thorough knowledge of human or mammalian systems physiology, which should include all of the following:

- neurophysiology (autonomic, sensory, motor and integrative)
- muscle
- cardiovascular
- respiratory
- gastrointestinal
- renal
- endocrine
- metabolism
- reproduction
- homeostasis

To satisfy the physiology prerequisite requirement, all applicants must successfully complete an approved full-year course or course equivalent (6 credit hours) by April 30<sup>th</sup> of the application cycle in which they apply, or write the Physiology Challenge Exam, and earn a pass or credit designation. In some cases, more than a full year of approved courses may be required to cover all the physiology content our Doctor of Dental Surgery program requires. If more than one course is listed, then a pass or credit designation must be attained in **each course** listed in the combination.

The following options are available for obtaining the physiology prerequisite:

1) **Successful completion of a course, or course combination, listed in the table below.**

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 physiology 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:

- Course reviews between September to March are conducted only for those applicants that have submitted an OUAC application. **Applicants presenting with course/course combinations that are not listed in this document are encouraged to apply as early as possible to avoid delays in the assessment of their application.** Course reviews for future applicants are conducted between April and August.
- There may be courses listed that are not offered but they remain on the list as they are approved courses if 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.

## 2) Physiology Challenge Exam

The Physiology Challenge Exam is offered to candidates who are competitive in the pool and have been invited for an interview, who will not have been able to fulfill the physiology course requirement by the end of the application cycle (April 30). Applicants can indicate their willingness to write the Challenge Exam as part of their application to Schulich Dentistry.

The Physiology Challenge Exam is held during the virtual interview weekend in February and is conducted online. It is available only to candidates who have been invited for an interview. **Applicants applying without an approved Physiology course/course combination will need to be prepared to take the Physiology Challenge Exam on short notice if invited to interview.**

The exam is similar to the instrument used to evaluate students who take Physiology 2130 at Western. It is a multiple-choice exam. A pass (minimum 50%) is required for your physiology background to be judged acceptable. A physiology course taken after the challenge exam will not be considered. There is a fee to cover the costs of administering this exam.

To be successful in the challenge exam, students should be familiar with human systems physiology at the level presented in a recent edition of **one** of the following textbooks:

**Human Physiology: The Mechanisms of Body Function**, by Vander, Sherman and Luciano (McGraw Hill).

**Human Physiology: An Integrated Approach**, by Silverthorn (Prentice Hall).

## Schulich Dentistry Program Acceptable Physiology Prerequisites

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Institution	APPROVED COURSES / COURSE COMBINATIONS
	Listings with a (+) means all courses on that line must be taken to cover the content required by our program
<b>Acadia University</b>	<ul style="list-style-type: none"> <li>• BIOL 2813 + BIOL 2823</li> <li>• BIOL 3173 + BIOL 3183</li> <li>• KINE 2413 + KINE 2423</li> </ul>
<b>University of Alberta</b>	<ul style="list-style-type: none"> <li>• Physiology 161</li> <li>• Physiology 210</li> <li>• Physiology 211</li> <li>• Physiology 252</li> <li>• Physiology 212 + Physiology 214</li> <li>• ZOOL 241 + ZOOL 242</li> <li>• PHYSE 152A/B</li> </ul>
<b>University of Alberta - Augustana</b>	<ul style="list-style-type: none"> <li>• AUPED 215 + AUPED 216</li> </ul>
<b>Ambrose University</b>	<ul style="list-style-type: none"> <li>• ZOO 261 + ZOO 263</li> </ul>
<b>Athabasca University</b>	<ul style="list-style-type: none"> <li>• BIOL 230</li> </ul>
<b>Bishop's University</b>	<ul style="list-style-type: none"> <li>• Biology 226A + Biology 228B</li> </ul>
<b>University of British Columbia</b>	<ul style="list-style-type: none"> <li>• Physiology 301</li> <li>• CAPS 301</li> <li>• BIOL 353</li> <li>• KIN 190 + KIN 191</li> <li>• BIOL 153</li> <li>• BIOL 155</li> </ul>
<b>University of British Columbia - Okanagan</b>	<ul style="list-style-type: none"> <li>• HES 101 + HES 111</li> </ul>
<b>Brock University</b>	<ul style="list-style-type: none"> <li>• BIOL 2P97 + PEKN P09</li> <li>• BIOL 2P97 + KINE 2P09</li> <li>• BIOL 2P97 + HLSC 2P09</li> </ul>

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<b>University of Calgary</b>	<ul style="list-style-type: none"> <li>• ZOOL 361 + ZOOL 363</li> <li>• ZOOL 461 + ZOOL 463</li> <li>• MDSC 404</li> <li>• MDSC 502</li> <li>• MDSC 604</li> <li>• KNES 259 + KNES 260</li> </ul>
<b>Carleton University</b>	<ul style="list-style-type: none"> <li>• BIOL 3305 + BIOL 3307</li> <li>• BIOL 2005 + BIOL 3306 + NEUR 2201 + FOOD 2001</li> <li>• BIOL 3306 + BIOL 3307</li> </ul>
<b>Concordia University</b>	<ul style="list-style-type: none"> <li>• BIOL 383 + BIOL 483</li> <li>• EXCI 257 + EXCI 357</li> </ul>
<b>Dalhousie University</b>	<ul style="list-style-type: none"> <li>• PHYL 2030X/Y</li> <li>• PHYL 2031 + PHYL 2032</li> <li>• PHY 2041 + PHYL 2032</li> <li>• PHYL 2041 + PHYL 2044</li> <li>• PHYL 1010X/Y</li> <li>• PHYL 1000X/Y (distance education)</li> <li>• PHYL 1400X/Y</li> <li>• PHYL 1001 + PHYL 1002</li> <li>• PHYL 1011 + PHYL 1012</li> </ul>
<b>University of the Fraser Valley</b>	<ul style="list-style-type: none"> <li>• KPE 270 + KPE 370</li> </ul>
<b>University of Guelph</b>	<ul style="list-style-type: none"> <li>• HK 3940</li> <li>• BIOM 3100 + BIOM 3110</li> <li>• BIOM 3200</li> <li>• HK 2810 + HK 3810</li> </ul>
<b>University of Guelph-Humber</b>	<ul style="list-style-type: none"> <li>• KIN 1060 + KIN 2060</li> </ul>
<b>Grant McEwan University</b>	<ul style="list-style-type: none"> <li>• ZOOL 241 + ZOOL 242</li> <li>• PEDS 101 + PEDS 103</li> </ul>

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<b>Lakehead University</b>	<ul style="list-style-type: none"> <li>• BIOL 2035 + BIOL 3250</li> </ul>
<b>Laurentian University</b>	<ul style="list-style-type: none"> <li>• BIOL 2105 + BIOL 3756</li> <li>• BIOL 2105 + BIOL 2701</li> <li>• EDPH/PHED 2506 + EDPH/PHED 2507</li> </ul>
<b>University of Manitoba</b>	<ul style="list-style-type: none"> <li>• ZOO 2530 + ZOO 2540</li> <li>• BIOL 2410 + BIOL 2420</li> </ul>
<b>McGill University</b>	<ul style="list-style-type: none"> <li>• PHGY 201 + PHGY 202</li> <li>• PHGY 209 + PHGY 210</li> <li>• NSCI 200 + PHGY 210</li> </ul>
<b>McMaster University</b>	<ul style="list-style-type: none"> <li>• BIOL 3U03 + BIOL 3UU3</li> <li>• HTH SCI 1B07 + HTH SCI 2B08</li> <li>• HTH SCI 2F03 + HTH SCI 2FF3</li> <li>• HTH SCI 2L03 + HTH SCI 2LL3</li> <li>• BIOL 2A03 + BIOL 3UU3</li> <li>• BIOL 2A03 + BIOL 3UO3</li> <li>• BIOL 2A03 + HTH SCI 3I03</li> <li>• BIOL 2A03 + KINESIOL 2Y03</li> <li>• KINESIOL 1Y03 + KINESIOL 1YY3</li> <li>• KINESIOL 1A03 + KINESIOL 1AA3</li> <li>• KINESIOL 2Y03 + KINESIOL 2YY3</li> </ul>
<b>Memorial University</b>	<ul style="list-style-type: none"> <li>• BIOCH 311A/B</li> <li>• Medicine 310 A/B</li> </ul>
<b>Université de Moncton</b>	<ul style="list-style-type: none"> <li>• BIO 2133 + BIO 2233</li> </ul>
<b>Mount Allison University</b>	<ul style="list-style-type: none"> <li>• BIO 2004 + BIO 3005</li> <li>• BIOL 3201 + BIOL 3211</li> </ul>
<b>Mount Royal College/University</b>	<ul style="list-style-type: none"> <li>• ZOOL 3361 + ZOOL 3363</li> <li>• BIOL 3104 + BIOL 3205</li> </ul>

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<b>University of New Brunswick</b>	<ul style="list-style-type: none"> <li>• BIOL 2721 + BIOL 1782</li> <li>• BIOL 2721 + BIOL 2782</li> <li>• BIOL 2761 + BIOL 2792</li> </ul>
<b>Niagara University</b>	<ul style="list-style-type: none"> <li>• BIOL 231 + BIOL 232</li> </ul>
<b>University of Northern British Columbia</b>	<ul style="list-style-type: none"> <li>• HHSC 111 + HHSC 112</li> <li>• HHSC 305 + HHSC 306</li> </ul>
<b>Ontario Tech University</b>	<ul style="list-style-type: none"> <li>• BIOL 2010</li> </ul>
<b>University of Ottawa</b>	<ul style="list-style-type: none"> <li>• PHS 3341 + PHS 3342</li> <li>• PHS 3341 + ANP 1105 + ANP 1107</li> <li>• ANP 1105 + ANP 1106 + ANP 1107</li> <li>• ANP 1505 + ANP 1506 + ANP 1507</li> <li>• ANP 1505 + ANP1506 + ANP 1107</li> <li>• ANP 1105 + ANP 1106 + PHS 3342</li> <li>• ANP 1105 + APA 2301 + ANP 1107</li> <li>• ANP 1505 + BIO 1700</li> <li>• ANP 1111 + ANP 1115 + PHS 3342</li> </ul>
<b>University of Prince Edward Island</b>	<ul style="list-style-type: none"> <li>• BIOL 401 + BIOL 402</li> <li>• BIOL 1220 + BIOL 3260</li> <li>• BIOL 1230 + BIOL 3260</li> </ul>
<b>Queen's University</b>	<ul style="list-style-type: none"> <li>• PHGY 210</li> <li>• PHGY 212</li> <li>• PHGY 214</li> <li>• PHGY 215 + PHGY 216</li> </ul>
<b>University of Regina</b>	<ul style="list-style-type: none"> <li>• KIN 267 + KIN 268</li> </ul>
<b>St. Francis Xavier University</b>	<ul style="list-style-type: none"> <li>• BIOL 251 + BIOL 252</li> </ul>

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<b>St. Mary's University</b>	<ul style="list-style-type: none"> <li>• BIO 2322 + BIO 2323</li> <li>• BIOL 2004 + BIOL 2005</li> <li>• BIOL 2004 + BIOL 3005</li> </ul>
<b>University of Saskatchewan</b>	<ul style="list-style-type: none"> <li>• PHSI 208</li> <li>• HSC 208</li> <li>• PHSI 212</li> <li>• <b>BMSC 208.3</b></li> </ul>
<b>Simon Fraser University</b>	<ul style="list-style-type: none"> <li>• KIN 305 + KIN 306</li> <li>• BPK 305 + BPK 306</li> </ul>
<b>Thompson Rivers University</b>	<ul style="list-style-type: none"> <li>• BIOL 354 + BIOL 355</li> <li>• BIOL 1593 + BIOL 1693</li> </ul>
<b>University of Toronto</b>	<ul style="list-style-type: none"> <li>• PSL 200Y</li> <li>• PSL 201Y</li> <li>• PSL 302Y</li> <li>• PSL 300H + PSL 301H</li> <li>• KPE 260 + KPE 369</li> </ul>
<b>University of Toronto – Mississauga</b>	<ul style="list-style-type: none"> <li>• BIO 202H + BIO 304H + BIO 310H</li> <li>• BIO 210Y + BIO 304H + BIO 310H</li> <li>• BIO 208H + BIO 209H + BIO 304H + BIO 310H</li> <li>• BIO 210Y + BIO 202H</li> <li>• BIO 208H + BIO 209H + BIO202H</li> </ul>
<b>University of Toronto – Scarborough</b>	<ul style="list-style-type: none"> <li>• BGYB 30 + BGYC 33</li> <li>• BGYB 30 + BGYC 34</li> <li>• BIOB 30 + BIOC 33</li> <li>• BIOB 30 + BIOC 34</li> <li>• BIOC 32 + BIOC 33</li> <li>• BIOB 34 + BIOC 33</li> <li>• BIOB 34 + BIOC 34</li> <li>• BIOC 32 + BIOC 34</li> </ul>

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<b>University of Toronto – School of Continuing Studies</b>	<ul style="list-style-type: none"> <li>• SCS 2159 – distance studies/online</li> </ul>
<b>Toronto Metro University</b>	<ul style="list-style-type: none"> <li>• PLN 103 + PLN 203</li> <li>• BLG 600 + BMS 605</li> <li>• BLG/CBLG 101 + BLG 111 + PLN 103</li> </ul>
<b>Trent University</b>	<ul style="list-style-type: none"> <li>• BIOL 3830 + BIOL 3840</li> </ul>
<b>Trinity Western</b>	<ul style="list-style-type: none"> <li>• BIOL 241 + BIOL 242</li> </ul>
<b>University of Victoria</b>	<ul style="list-style-type: none"> <li>• PE 241A + PE 241B</li> <li>• PE 241A + EPHE 241B</li> <li>• EPHE 141 + EPHE 241 + EPHE 242</li> <li>• BIO 365 + EPHE 160 + EPHE 242</li> </ul>
<b>University of Waterloo</b>	<ul style="list-style-type: none"> <li>• BIOL 273 + BIOL 373 (distance education also)</li> <li>• SCI 351 + SCI 352 (distance education also)</li> <li>• BIOL 273 + SCI 352</li> <li>• PHARM 110 + PHARM 111</li> </ul>
<b>Western University</b>	<ul style="list-style-type: none"> <li>• PHYSIO 1020</li> <li>• PHYSIO 1021</li> <li>• PHYSIO 2130</li> <li>• PHYSIO 3120</li> <li>• PHYSPHARM 2000</li> </ul>
<b>Wilfrid Laurier University</b>	<ul style="list-style-type: none"> <li>• BI 216 + BI 217</li> <li>• BI 216 + BI 396i</li> <li>• HE 211 + BI 217</li> <li>• HE 211 + BI 396i</li> <li>• KP 220 + KP 322 + KP 425</li> <li>• HN 220 + HN 320</li> </ul>



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<b>University of Windsor</b>	<ul style="list-style-type: none"> <li>• BIOL 55-204 + BIOL 55-205</li> <li>• BIOL 2040 + BIOL 2050</li> <li>• Mammalian PHYSIO 55-484 + 55-485</li> </ul>
<b>University of Winnipeg</b>	<ul style="list-style-type: none"> <li>• BIOL 1112/6</li> </ul>
<b>York University</b>	<ul style="list-style-type: none"> <li>• KINE 2011 + KINE 3012</li> <li>• KINE 3011 + KINE 3012</li> <li>• BIOL 3060 + BIOL 3070</li> </ul>