

## Honours Biochemistry/Biotechnology Specialization Program – starting Fall 2019

Please note: this table represents one of multiple suitable routes through the Hons Biochemistry academic plan, and is adapted from the official resource for degree requirements, the UWaterloo Undergraduate Calendar:

<http://ugradcalendar.uwaterloo.ca/group/uWaterloo-Faculty-of-Science>

Total Units: 22

1A	1B	2A	2B	3A	3B	4A	4B
BIOL 130/130L (0.75 unit)	BIOL 239 (0.5 unit)	BIOL 240/240L (0.75 unit)	BIOL 241 (0.5 unit)	CHEM 331 (0.5 unit)	BIOL 331 (0.5 unit)	BIOL 439 (0.5 unit)	BIOL 432 (0.5 unit)
CHEM 120/120L (0.75 unit)	CHEM 123/123L (0.75 unit)	BIOL 309 (0.5 unit)	CHEM 233/233L (0.75 unit)	STAT 202 or MATH 228 (0.5 unit)	CHEM 212 (0.5 unit)	BIOL 443 (0.5 unit)	Program Elective (0.5 unit)
CHEM 101 (0 unit)	CHEM 140 (0.5 unit)	CHEM 200 (0.5 unit)	CHEM 254 (0.5 unit)	BIOL 342 (0.5 unit)	CHEM 335L (0.5 unit)	Program Elective (0.5 unit)	Program Elective (0.5 unit)
MATH 127 (0.5 unit)	MATH 128 (0.5 unit)	CHEM 220/220L (0.75 unit)	CHEM 265/265L (0.75 unit)	BIOL 354 (0.5 unit)	CHEM 357 (0.5 unit)	Program Elective (0.5 unit)	Elective (0.5 unit)
ENGL 193/SPCOM 193 (0.5 unit)	PHYS 112 or 122 (0.5 unit)	CHEM 264 (0.5 unit)	<sup>2</sup> CHEM 224L (0.5 unit)	Elective (0.5 unit)	<sup>4</sup> Program Elective (0.5 unit)	Elective (0.5 unit)	Elective (0.5 unit)
PHYS 111 or 121 (0.5 unit)			<sup>3</sup> {CHEM 212}		<sup>5</sup> CHEM 360L (0.5 unit)		
<sup>1</sup> PHYS 111L (0.25 unit)							

<sup>1</sup>if taking for 0.25 Lab Unit Credit (other possibilities for this credit incl PHYS 121L, BIOL 273L, CHEM 250L, CHEM 313L)

<sup>2</sup>if taking for 0.5 Lab Unit Credit If taken for the 0.5 lab credit it does not count as a program elective

<sup>3</sup>if planning to take CHEM 360L in 3B for 0.5 Lab Unit Credit, consider taking CHEM 212 here to lighten 3B load

<sup>4</sup>this must be CHEM 360 if taking CHEM 360L for 0.5 Lab Unit Credit (see <sup>5</sup>)

<sup>5</sup>if taking for 0.5 unit Lab Unit Credit; note CHEM 360 is a co-requisite for CHEM 360L (& vice versa)

If taken for the 0.5 lab credit it does not count as a program elective

**Program Electives:** in years 3 & 4, a total of 2.5 elective units (i.e., 5 courses) are to be chosen from Lists A and B. A minimum of 1.5 units (i.e., 3 courses) must be selected from List A. At least 1.5 units (i.e., 3 courses) must be BIOL and at least 1.0 units (i.e., 2 courses) must be CHEM.

**List A:** BIOL 308, BIOL 335L, BIOL 341, BIOL 365, BIOL 382, BIOL 428, BIOL 431, BIOL 433, BIOL 434, BIOL 438, BIOL 441, BIOL 465, BIOL 469, BIOL 483, BIOL 486, BIOL 499A, BIOL 499B; CHEM 224L, CHEM 360, CHEM 360L, CHEM 381, CHEM 382L, CHEM 383, CHEM 430, CHEM 432, CHEM 433, CHEM 494A, CHEM 494B

**List B:** BIOL 303, BIOL 323, BIOL 345, BIOL 359, BIOL 370, BIOL 371, BIOL 373, BIOL 442, BIOL 444, BIOL 447, BIOL 448, BIOL 472, BIOL 473, BIOL 477L, BIOL 484; CHEM 209, CHEM 221, CHEM 310, CHEM 313, CHEM 323, CHEM 400, CHEM 404, CHEM 464

**Electives:** 2.0 units (i.e., 4 courses) to be chosen from any 0.5 unit lecture or lab courses

**If studying in the co-op stream,** your 3<sup>rd</sup> year courses, due to course availability, should be taken as follows:

**3A (Winter term):** BIOL 331, CHEM 212, CHEM 357, Program Elective (0.5 unit), 0.5 unit Lab Credit (if choosing CHEM 360L)

**3B (Fall term):** BIOL 342, BIOL 354, CHEM 331, CHEM 335L, STAT 202 (or MATH 228), Elective (0.5 unit) {could move Elective to 3A, especially if CHEM 212 was completed in 2B}