

COMBINED HONOURS CHEMISTRY AND MATHEMATICS



CHEMISTRY
THE UNIVERSITY OF BRITISH COLUMBIA

<p>FIRST YEAR</p> <p>COMMUNICATION REQUIREMENT¹ 3</p> <p>CHEM 121 (111), 123 8</p> <p>CPSC 110 4</p> <p>MATH 120² 4</p> <p>MATH 121³ 4</p> <p>PHYS 107, 108, 109⁴ 7</p> <p>ELECTIVES⁵ 3</p> <p>TOTAL CREDITS 33</p>	<p>THIRD YEAR</p> <p>CHEM 300¹, 304, 312 9</p> <p>CHEM 315 1</p> <p>CHEM 319, 329 2</p> <p>MATH 305⁹, 316, 318 9</p> <p>MATH 320, 321 6</p> <p>ELECTIVES⁵ 6</p> <p>TOTAL CREDITS 33</p>
<p>SECOND YEAR</p> <p>CHEM 203⁶ 4</p> <p>CHEM 208 3</p> <p>CHEM 211 4</p> <p>CHEM 213, 245 4</p> <p>CPSC 210 OR MATH 210⁷ 4</p> <p>MATH 215, 223 (OR 221) 6</p> <p>MATH 226 (OR 200)⁸, 227 (OR 317) 6</p> <p>ELECTIVES⁵ 2</p> <p>TOTAL CREDITS 33</p>	<p>FOURTH YEAR</p> <p>CHEM 412 3</p> <p>CHEM 449¹⁰ 6</p> <p>CHEM ELECTIVES¹¹ 3</p> <p>9 CREDITS FROM MATH 322, 323, 400-406, 412, 416-429, 433-440, 443, 449, 450 9</p> <p>PHYS 301 3</p> <p>ELECTIVES⁵ 9</p> <p>TOTAL CREDITS 33</p> <p>TOTAL CREDITS FOR DEGREE 132</p>

¹ Of the 6 credits of coursework is required to satisfy the Communication Requirement, 3 credits are specified in third year (CHEM 300). The remaining 3 credits must be chosen from the list of acceptable courses, see [Communication Requirement](#). ENGL credits beyond those needed to satisfy the Communication Requirement may be applied towards the Faculty of Science [Arts Requirement](#).

² MATH 180 or 184 may substitute for MATH 120. MATH 100 or 102 or 104 may substitute for MATH 120 by increasing the electives by 1 credit. MATH 110 may substitute for MATH 120 by decreasing the electives by 3 credits.

³ MATH 101 or 103 or 105 may substitute for MATH 121 by increasing the electives by 1 credit.

⁴ PHYS 117, 118, and 119 may substitute for PHYS 107, 108, and 109. Students without Physics 12 must take PHYS 100 before taking other 100-level PHYS courses.

⁵ Electives must be chosen to ensure the Faculty of Science [Arts Requirement](#) is met. Elective credits may be redistributed among the years in this specialization, provided the total number remains the same. The year level of an elective does not need to correspond to the year level of the specialization. Note that students in honours specializations must complete a minimum of 30 credits in each Winter Session. Students who do not have credit for Biology 11 or 12 must take 3 credits of 100-level BIOL (usually BIOL 111). Students with credit for Biology 11 or 12 must successfully complete 3 credits of an ASTR, BIOL, EOSC, or GEOB lecture course.

⁶ Students with CHEM 235 and a score of 76% or higher in CHEM 233 may apply for admission to this specialization and will be allowed to use CHEM 233 and 235 in place of CHEM 203.

⁷ Students selecting MATH 210 must increase the number of electives by 1 credit. MATH 210 may not be offered every year.

⁸ Students who take MATH 200 or who obtain less than 68% in MATH 226 must take MATH 220 and obtain 80% or higher in order to take the required course MATH 320.

⁹ MATH 300, 301 may substitute for MATH 305 by decreasing the electives by 3 credits.

¹⁰ Students in this specialization will typically select projects in physical or theoretical chemistry.

¹¹ Chosen from 400-level CHEM lecture courses. Recommended CHEM courses include CHEM 401, 402, 407, 408, 410, 417.