

Requirements for the Degree in Honors Integrative Biology: (for students admitted to IBH prior to Fall 2016)

Minimum hours required for graduation: 120 hours

HOURS	REQUIREMENTS ¹			
4	IB 150 – Organismal & Evolutionary Biol			
4	MCB 150 –Molecular & Cellular Basis of Life			
5	IB 270 – Evolution of Molecules and Cells--the major evolutionary transitions of biomolecules and cells, including energy acquisition and metabolism; information inheritance, system regulation, and genomes; the origin of life, the prokaryotic cell, eukaryotic cell, and multicellularity. Lecture and lab.			
5	IB 271 – Organismal Biology--integrated study of the diversity and structure and function of plants and animals in evolutionary and environmental contexts. Conceptual themes and techniques of molecular and cellular levels of biological organization will be integrated as well. Lecture and lab.			
5	IB 372 – Ecology and Evolution ² --integrated study of ecology, population genetics, and evolution. Conceptual themes and techniques from the molecular, cellular, and organismal levels of biology will be integrated as well. Lecture, Lab, and field work.			
11-12	MATH 220 or 221 – Calculus I, and MATH 231 – Calculus II, and MATH 241 – Calculus III			
14-16	<table border="0" style="width: 100%;"> <tr> <td style="width: 40%; vertical-align: top;"> Select ONE group of courses:³ CHEM 202 – Accelerated Chemistry I, and CHEM 203 – Accelerated Chemistry Lab I, and CHEM 204 – Accelerated Chemistry II, and CHEM 205 – Accelerated Chemistry Lab II, and CHEM 236 – Fundamental Organic Chem I, and CHEM 237 – Structure and Synthesis </td> <td style="width: 10%; text-align: center; vertical-align: middle; font-size: 2em; color: #0070C0;">or</td> <td style="width: 40%; vertical-align: top;"> CHEM 102 – General Chemistry I, CHEM 103 – General Chemistry Lab I, and CHEM 104 – General Chemistry II CHEM 105 – General Chemistry Lab II, and CHEM 232 – Elementary Organic Chem I, and CHEM 233 – Elementary Organic Chem I lab </td> </tr> </table>	Select ONE group of courses: ³ CHEM 202 – Accelerated Chemistry I, and CHEM 203 – Accelerated Chemistry Lab I, and CHEM 204 – Accelerated Chemistry II, and CHEM 205 – Accelerated Chemistry Lab II, and CHEM 236 – Fundamental Organic Chem I, and CHEM 237 – Structure and Synthesis	or	CHEM 102 – General Chemistry I, CHEM 103 – General Chemistry Lab I, and CHEM 104 – General Chemistry II CHEM 105 – General Chemistry Lab II, and CHEM 232 – Elementary Organic Chem I, and CHEM 233 – Elementary Organic Chem I lab
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3	MCB 450 – Introductory Biochemistry			
4	BIOC 455 – Technqs Biochem & Biotech			
4	PHYS 211 – Univ Physics, Mechanics ⁵			
4	PHYS 212 – Univ Physics, Elec & Mag ⁵			
3	An approved 300- or 400-level course in statistics ⁴			
6	IB 490 – Independent Research (2 semesters)			
10	300- or 400-level courses in the biological sciences			

Other requirements:

Twelve hours advanced-level courses in the major must be taken on this campus. All LAS General Education requirements must be satisfied. No more than 11 hours of credit in 100-level courses in IB or MCB may be counted toward graduation.

Students may count toward graduation no more than a combined maximum of 10 hours of IB 390 and IB 490 credit offered for

independent study. Substitutions or other changes in the requirements given above may be made only by petition to and approval of the director of the Integrative Biology Honors program.

¹Students must consult with their integrative biology honors adviser at least once each semester.

²Continuation in the integrative biology honors concentration requires a grade of B or better in each of IB 270, 271, and 372 and a 3.0 GPA.

³The first sequence is recommended, and preference will be given on admission to students following it. Introductory chemistry should be completed prior to enrolling in IB 270.

⁴NRES 421 is recommended. Other suitable courses are CPSC 440 or STAT 400

⁵May be substituted by PHYS 101 and 102 *and* an approved 400-level course that includes physical/math principles (ATMS 421, ANSC 448, or other courses approved by IBH Director).