

LOYOLA UNIVERSITY CHICAGO

B.S. IN BIOINFORMATICS

MAJOR SAMPLE SCHEDULE – PRE-HEALTH

CLASSES RECOMMENDED FOR PRE-HEALTH STUDENTS THAT ARE NOT REQUIRED FOR THE MAJOR ARE IN BLUE

FALL	SPRING
YEAR 1	
BIOL 101 General Biology I (3) <i>BIOL 111 General Biology Lab I (1)</i> CHEM 101 General Chemistry A (3) <i>CHEM 111 General Chemistry Lab A (1)</i> MATH 131 ¹ Applied Calculus I (3) CORE: Philosophical Knowledge Tier 1 (3) UNIV 101 (1) 15 Credit Hours	<i>BIOL 102 General Biology II (3)</i> <i>BIOL 112 General Biology Lab II (1)</i> CHEM 102 General Chemistry B (3) <i>CHEM 112 General Chemistry Lab B (1)</i> MATH 132 ² Applied Calculus I (3) CORE: College Writing Seminar (3) 14 Credit Hours
YEAR 2	
BIOL 282 Genetics (3) BIOL 283 Genetics Lab (1) CHEM 223 ³ Organic Chemistry A (3) <i>CHEM 225 Organic Chemistry Lab A (1)</i> COMP 170 Intro to Programming (3) CORE: Literary Knowledge & Experience Tier 1 (3) CORE: Theology and Religious Studies Tier 1 (3) 17 Credit Hours	BIOL 387 ^{4,5} Genomics (3) CHEM 224 ⁴ Organic Chemistry B (3) <i>CHEM 226 Organic Chemistry Lab B (1)</i> COMP 163 Discrete Structures (3) CORE: Historical Knowledge Tier 1 (3) CORE: Societal and Cultural Knowledge Tier 1 (3) 16 Credit Hours
YEAR 3	
BIOL 388 ⁷ Bioinformatics (3) CHEM 361 Biochemistry (3) COMP 271 Data Structures (3) <i>PHYS 111 College Physics I (3)</i> <i>PHYS 111L College Physics Lab I (1)</i> CAS Language Requirement (3) ⁸ 16 Credit Hours	CHEM 365 ^{9,10} Proteomics (3) STAT 335 Intro to Biostatistics (3) <i>PHYS 112 College Physics II (3)</i> <i>PHYS 112L College Physics Lab II (1)</i> CORE: Literary Knowledge & Experience Tier 2 (3) CAS Language Requirement (3) ⁸ 16 Credit Hours
YEAR 4	
COMP 363 ⁹ Design & Analysis of Algorithms (3) CORE: Societal and Cultural Knowledge Tier 2 (3) CORE: Historical Knowledge Tier 2 (3) CORE: Artistic Knowledge and Experience (3) CORE: Ethics (3) 15 Credit Hours	BIOI 399 ^{11,12} Bioinformatics Research (3) STAT 337 ^{4,13} Quantitative Bioinformatics (3) COMP 383 ⁴ Computational Biology (4) CORE: Theology and Religious Studies Tier 2 (3) CORE: Philosophical Knowledge Tier 2 (3) 16 Credit Hours

¹ May substitute with MATH 161; ² May substitute with MATH 162; ³ May substitute with CHEM 221; ⁴ Offered in Spring semester only; ⁵ May substitute with BIOL 392 (Fall Only course); ⁶ May substitute with CHEM 222; ⁷ Offered in Fall semester only; ⁸ Language competency required at the 102 level by course or test; ⁹ Choose 2 of 3 courses: CHEM 365, BIOL 390, COMP 363; ¹⁰ CHEM 365 is offered every Spring semester of odd years; ¹¹ May substitute with BIOI 397 or BIOI 398 and may be repeated more than once (although only 1 credit hour is required); ¹² 3 credit hours of BIOI 397, 398, or 399 fulfills Engaged Learning requirement; ¹³ May substitute with STAT 336.

Note: College of Arts & Sciences requires 2 Writing Intensive (WI) courses; many CORE Tier 2 courses are available as WI.