

LOYOLA UNIVERSITY CHICAGO
B.S. IN BIOINFORMATICS
NEW (F2020) MAJOR SAMPLE SCHEDULE

FALL	SPRING
YEAR 1	
General Biology (BIOL 101) (3) General Chemistry A (CHEM 101) ¹ (3) Applied Calculus I (MATH 131) ² (3) CORE: College Writing Seminar (3) CORE: Theology and Religious Studies Tier 1 (3) UNIV 101 (1) 16 Credit Hours	General Chemistry B (CHEM 102) ³ (3) Intro to Computing Tools (COMP 141) (3) Applied Calculus II (MATH 132) ⁴ (3) CORE: Ethics (3) CORE: Theology and Religious Studies Tier 2 (3) 15 Credit Hours
YEAR 2	
Genetics (BIOL 282) (3) Genetics Lab (BIOL 283) (1) Organic Chemistry A (CHEM 223) ⁵ (3) Intro to Programming (MATH 215) ⁶ (3) CORE: Historical Knowledge Tier 1 (3) CORE: Philosophical Knowledge Tier 1 (3) 16 Credit Hours	Organic Chemistry B (CHEM 224) ⁷ (3) Data Structures & Algorithms (COMP 231) (3) CAS Elective (3) CORE: Historical Knowledge Tier 2 (3) CORE: Philosophical Knowledge Tier 2 (3) 15 Credit Hours
YEAR 3	
Bioinformatics (BIOL 388) (3) [Fall only] Biochemistry (CHEM 361) (3) CAS Elective (3) CAS Language Requirement 1 (3) ⁸ CORE: Literary Knowledge & Experience Tier 1 (3) 15 Credit Hours	Introduction to Biostatistics (STAT 335) (3) Genomics (BIOL 387) (3) ⁹ [Spring only] Undergraduate Capstone (BIOI 397/398/399) ¹⁰ (1+) CAS Language Requirement 2 (3) CORE: Literary Knowledge & Experience Tier 2 (3) CORE: Societal and Cultural Knowledge Tier 1 (3) 16+ Credit Hours
YEAR 4	
Exploring Proteins (BIOI 365) (3) ^{11,12} [Fall only] B.S. Bioinformatics COMP elective (3) ¹² or Molecular Biology Lab (BIOL 390) ¹² (4) CAS Elective (3) CORE: Societal and Cultural Knowledge Tier 2 (3) 12 (or 13) Credit Hours	Computational Biology (COMP 383) (4) [Spring only] Quant. Bioinformatics (STAT 337) ¹³ (3) [Spring only] CAS Elective (3) CAS Elective (3) CORE: Artistic Knowledge and Experience (3) 16 Credit Hours

¹ May substitute with CHEM 105; ² May substitute with MATH 161; ³ May substitute with CHEM 106; ⁴ May substitute with MATH 162; ⁵ May substitute with CHEM 221; ⁶ May substitute with COMP 170 (offered fall, spring and summer); ⁷ May substitute with CHEM 221; ⁸ Language competency required at the 102 level by course or [test](#); ⁹ May substitute with Metagenomics (BIOL 392) (fall only); ¹⁰ the Research Survey course (BIOI 397), Research Internship (BIOI 398), and Research (BIOI 399) can be taken any semester offered and Internship/research can be repeated with each semester 1-4 credit hours (although only 1 credit hour is required for the major); ¹¹ May substitute with Proteomics (CHEM 365) (spring odd years only); ¹² Choose 2 of 3: (1) Exploring Proteins (BIOI 365) or Proteomics (CHEM 365), (2) Machine Learning (COMP 379) [Fall only] or Database Programming (COMP 353), (3) Molecular Biology Lab (BIOL 390); 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; Molecular Biology Lab (BIOL 390) is also WI. Note, only 1 WI course can be taken in a single semester.

Note: 120 credit hours are required for graduation.