

**LOYOLA UNIVERSITY CHICAGO**  
**B.S. IN BIOINFORMATICS**  
**MAJOR SAMPLE SCHEDULE (DECLARED BEFORE FALL 2020)**

FALL	SPRING
<b>YEAR 1</b>	
BIOL 101 General Biology I (3) CHEM 101 General Chemistry A (3) MATH 131 <sup>1</sup> Applied Calculus I (3) CORE: Philosophical Knowledge Tier 1 (3) CORE: Theology and Religious Studies Tier 1 (3) UNIV 101 (1) <b>16 Credit Hours</b>	CHEM 102 General Chemistry B (3) COMP 170 Intro to Programming (3) MATH 132 <sup>2</sup> Applied Calculus I (3) CORE: Historical Knowledge Tier 1 (3) CORE: College Writing Seminar (3) <b>15 Credit Hours</b>
<b>YEAR 2</b>	
BIOL 282 Genetics (3) BIOL 283 Genetics Lab (1) CHEM 223 <sup>3</sup> Organic Chemistry A (3) COMP 163 Discrete Structures (3) CORE: Literary Knowledge & Experience Tier 1 (3) CAS Elective (3) <b>16 Credit Hours</b>	BIOL 387 <sup>4,5</sup> Genomics (3) CHEM 224 <sup>6</sup> Organic Chemistry B (3) COMP 271 Data Structures (3) CORE: Historical Knowledge Tier 2 (3) CORE: Societal and Cultural Knowledge Tier 1 (3) <b>15 Credit Hours</b>
<b>YEAR 3</b>	
BIOL 388 <sup>7</sup> Bioinformatics (3) CHEM 361 Biochemistry (3) CORE: Theology and Religious Studies Tier 2 (3) CORE: Philosophical Knowledge Tier 2 (3) CAS Language Requirement (3) <sup>8</sup> <b>15 Credit Hours</b>	CHEM 365 <sup>9,10</sup> Proteomics (3) STAT 335 Intro to Biostatistics (3) CORE: Literary Knowledge & Experience Tier 2 (3) CORE: Artistic Knowledge and Experience (3) CAS Language Requirement (3) <sup>8</sup> <b>15 Credit Hours</b>
<b>YEAR 4</b>	
BIOI 399 <sup>11,12</sup> Bioinformatics Research (1) COMP 363 <sup>9</sup> Design & Analysis of Algorithms (3) CORE: Societal and Cultural Knowledge Tier 2 (3) CORE: Ethics (3) CAS Elective (3) CAS Elective (3) <b>16 Credit Hours</b>	BIOI 399 <sup>11,12</sup> Bioinformatics Research (2) STAT 337 <sup>4,13</sup> Quantitative Bioinformatics (3) COMP 383 <sup>4</sup> Computational Biology (4) CAS Elective (3) <b>12 Credit Hours</b>

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

LOYOLA UNIVERSITY CHICAGO

B.S. IN BIOINFORMATICS

MAJOR SAMPLE SCHEDULE – PRE-HEALTH (DECLARED BEFORE FALL 2020)

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

FALL	SPRING
<b>YEAR 1</b>	
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 <sup>1</sup> Applied Calculus I (3) CORE: Philosophical Knowledge Tier 1 (3) UNIV 101 (1) <b>15 Credit Hours</b>	<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 <sup>2</sup> Applied Calculus I (3) CORE: College Writing Seminar (3) <b>14 Credit Hours</b>
<b>YEAR 2</b>	
BIOL 282 Genetics (3) BIOL 283 Genetics Lab (1) CHEM 223 <sup>3</sup> 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) <b>17 Credit Hours</b>	BIOL 387 <sup>4,5</sup> Genomics (3) CHEM 224 <sup>4</sup> 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) <b>16 Credit Hours</b>
<b>YEAR 3</b>	
BIOL 388 <sup>7</sup> 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) <sup>8</sup> <b>16 Credit Hours</b>	CHEM 365 <sup>9,10</sup> 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) <sup>8</sup> <b>16 Credit Hours</b>
<b>YEAR 4</b>	
COMP 363 <sup>9</sup> 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) <b>15 Credit Hours</b>	BIOI 399 <sup>11,12</sup> Bioinformatics Research (3) STAT 337 <sup>4,13</sup> Quantitative Bioinformatics (3) COMP 383 <sup>4</sup> Computational Biology (4) CORE: Theology and Religious Studies Tier 2 (3) CORE: Philosophical Knowledge Tier 2 (3) <b>16 Credit Hours</b>

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