

## B.S. Computational Biology SCB Degree

*This is not an official list of degree requirements. Adjustments may be required due to curriculum changes.*

### First Year

#### Fall

Course	Prerequisite	Credit
UN 1015 Composition		3
Math 1160 or 1161 Calculus I with Tech	Yes	4 or 5
BL 1100 Gen Bio I		3
BL 1110 Gen Bio I Lab		1
Essential Education: Michigan Tech Seminar BL 1580		1
CH 1150 University Chem I	Yes	3
CH 1151 University Chem Lab 1	Yes	1
<b>Total</b>		<b>16 or 17</b>

#### Spring

Course	Prerequisite	Credit
Essential Education: Foundations of the Human World		3
CS 1121 Intro to Programming I	Yes	3
MA 2160 Calculus II with Tech	Yes	4
BL 1200 Gen Bio II		3
BL 1210 Gen Bio II Lab		1
CH 1160 University Chemistry II	Yes	3
CH 1161 University Chemistry II Lab	Yes	1
<b>Total</b>		<b>18</b>

### Second Year

#### Fall

Course	Prerequisite	Credit
Essential Education: Arts and Culture		3
CH 2410 Organic Chemistry I	Yes	3
Essential Education: Activities for Well-being and Success		1
BL 2700 Principles of Computational Biology	Yes	3
CS 1122 Intro to Programming II	Yes	3
MA 2330 Intro to Linear Algebra	Yes	3
<b>Total</b>		<b>16</b>

#### Spring

Course	Prerequisite	Credit
MA 3715 Biostatistics	Yes	3
BL 2200 Genetics	Yes	3
BL 2210 Genetics Lab	Yes	1
CS 2311 Discrete Structures	Yes	3
CS 2321 Data Structures	Yes	3
Essential Education: Shape Elective	Yes	3
<b>Total</b>		<b>16</b>

\*BL2010/2011 only offered in Fall; BL 2160 and 2170 only in spring

### Third Year

#### Fall

Course	Prerequisite	Credit
Essential Education: Intercultural Competency		3
Essential Education: Activities for Well-being and Success		1
BL 3300 Genomics	Yes	3
BL 3025 Biochemistry	Yes	3
MA 3740 Statistical Programming & Analysis	Yes	3
CS 3425 Intro to Data Base Systems	Yes	3
<b>Total</b>		<b>16</b>

#### Spring

Course	Prerequisite	Credit
Essential Education: Experience		3
BL 3782 Writing Practicum	Yes	2
CS 4321 Intro to Algorithms	Yes	3
Free Elective		3
Major Elective		3
<b>Total</b>		<b>14</b>

### Fourth Year

#### Fall

Course	Prerequisite	Credit
Essential Education: Communication Intensive		3
BL 4300 or 4310 Bacterial Genomics or Eukaryotic Genomics	Yes	3
BL 4030 Molecular Biology	Yes	3
BL 4840 Molecular Biology Techniques	Yes	3
<b>Total</b>		<b>12</b>

#### Spring

Course	Prerequisite	Credit
BL 4600 Prof Dev Capstone	Yes	1
Exp Learning Capstone		3
Approved Major Elective		3
Free Elective		4
Essential Education: Activities for Well-being and Success		1
<b>Total</b>		<b>12</b>

**Grand Total = 120 Credits**