

## Michigan Technological University Bachelor of Science Degree Audit

### Major Program: Computational Biology

Program Code: SCB, Academic Year 2023-2024

Total credits required for the degree: 120

#### Biology Requirements: 30 credits

- BL 1580 (1)
- BL 1100 (3) and BL 1110 (1)
- BL 1200 (3) and BL 1210 (1)
- BL 2200 (3) and BL 2210 (1)
- BL 2700 (3)
- BL 3025 (3)
- BL 3300 (3)
- BL 3782 (2)
- BL 4030 (3)
- BL 4840 (3)

#### Chemistry Requirements: 11 credits

- CH 1150 (3) and CH 1151 (1)
- CH 1160 (3) and CH 1161 (1)
- CH 2410 (3)

#### Computer Science Requirements: 18 credits

- CS 1121 (3)
- CS 1122 (3)
- CS 2311 (3)
- CS 2321 (3)
- CS 3425 (3)
- CS 4321 (3)

#### Mathematics Requirements: 17 to 18 credits

- MA 1160 (4) or MA 1161 (5)
- MA 2160 (4)
- MA 2330 (3)
- MA 3715 (3)
- MA 3740 (3)

#### Biology Capstone: 3 to 4 credits

- BL 4600 (1)

#### [Experiential Learning: Choose 2 to 3 credits](#)

BL3990, BL4000, BL4153, BL4300, BL4310, BL4995, BL4999, ENT3950, ENT3960, ENT4900, ENT4910

#### Bioinformatics Elective: one course for 3 credits

BL4300, BL4310, FW4082, FW4099

#### Approved Electives: 6 credits

Select at least 6 credits of approved electives from the list below. Some courses may have additional prerequisite requirements.

#### [Biology Approved Electives](#)

BL3210 or BL3310, BL3820, BL4020, BL4370

#### [Chemistry Approved Electives](#)

CH3510, CH5560

#### [Computer Science Approved Electives](#)

CS1142, CS3141, CS3311, CS3331, CS4811, CS4821, CS5811, CS5821, CS5841

#### [Mathematics Approved Electives](#)

MA3160, MA3720, MA4710, MA4720, MA4760, MA4770, MA4780, MA4790

#### [Physics Approved Electives](#)

PH2100

#### [University-Wide Approved Electives](#)

UN3002, UN5390

#### Free Electives: 4 to 8 credits

Any coursework is allowable, excluding co-curricular and coursework below the 1000- level.

### **General Education Core, Humanities, Fine Arts, and Social Science (HASS) Requirements: 24 credits**

Courses used to complete Core and HASS requirements may not be used to complete other degree requirements. Students must complete 12 credits of Core coursework and 12 credits of Humanities, Fine Arts, and Social Science (HASS) coursework. Repeatable courses may not be repeated for general education credit. Core and HASS courses can be found on the [General Education](#) page.

#### **Core: 12 credits**

- UN 1015 (3)
- UN 1025 or an upper level modern language (3)
- Critical and Creative Thinking (3)
- Social Responsibility and Ethical Reasoning (3)

#### **HASS: 12 credits, at least 6 of the 12 credits must be at the 3000-level or 4000-level.**

- Communication/Composition (minimum 3 credits)
- Humanities and Fine Arts (minimum 3 credits)
- Social and Behavioral Sciences (minimum 3 credits)
- Any course from the General Education Core, HASS, or Restricted HASS course list (0 to 3 credits)

#### **Co-curricular Activities: 3 credits**

Required for graduation, but not included in the GPA calculation or in the overall credits required for the degree. Only courses on the co-curricular course list are eligible. Half (0.5) credit courses may be repeated to a maximum of one time for co-curricular credit. Find eligible courses on the [General Education](#) page.