

# Michigan Technological University

## Bachelor of Science Degree Audit

### Major Program: Bioinformatics

Program Code: SBI, Academic Year 2020-21

Total credits required for the degree: 120

#### Biology Requirements: 30 credits

Course	Credits
BL 1100 (3) and BL 1110 (1)	4
BL 1200 (3) and BL 1210 (1)	4
BL 1580	1
BL 2200 (3) and BL 2210 (1)	4
BL 2700	3
BL 3020	3
BL 3300	3
BL 3782	2
BL 4030	3
BL 4840	3

#### Chemistry Requirements: 11 credits

Course	Credits
CH 1150 (3) and CH 1151 (1)	4
CH 1160 (3) and CH 1161 (1)	4
CH 2410	3

#### Computer Science Requirements: 18 credits

Course	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

Course	Credits
MA 1160 or MA 1161	4/5
MA 2160	4
MA 2330	3
MA 3715	3
MA 3740	3

#### Biology Capstone Requirement: 2 to 3 credits

Select either Biology Capstone option. Research credits in Biology (BL 4000/4001) may be taken individually and require arrangement with the instructor. Additional research credits beyond the capstone requirement count as free elective credits.

Course	Credits
BL 4510 or (BL 4000 or BL 4001) and BL 4530	2 3

#### Bioinformatics Elective: 3 credits

Course	Credits
BL 4300	3
FW 4082	3
FW 4099	3

#### Approved Electives: at least 6 credits

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

##### Biology Approved Electives

Course	Credits
BL 3210 or BL 3310	4/3
BL 3820	2
BL 4020	3
BL 4370	3

##### Chemistry Approved Electives

Course	Credits
CH 3510	3
CH 5560	3

##### Computer Science Approved Electives

Course	Credits
CS 1142	3
CS 3141	3
CS 3311	3
CS 3331	3
CS 4811	3
CS 4821	3
CS 5811	3
CS 5821	3
CS 5841	3

##### Mathematics Approved Electives

Course	Credits
MA 3160	4
MA 3720	3
MA 4710	3
MA 4720	3
MA 4760	3
MA 4770	3
MA 4780	3
MA 4790	3

##### Physics Approved Electives

Course	Credits
PH 2100	3

##### University-Wide Approved Electives

Course	Credits
UN 3002	2
UN 5390	3

### General Education Core and HASS

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

Course	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

Six of the 12 HASS credits must be at the 3000 or 4000 level (an upper division language course in place of UN1025 does not meet this requirement). No more than three credits may come from the HASS Restricted course list.

Course	Credits
Communication/ Composition	Minimum 3
Humanities and Fine Arts	Minimum 3
Social and Behavioral Sciences	Minimum 3
Course from any list above or from the Restricted HASS course list	0 to 3

#### 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 credit (0.5) courses may be repeated to a maximum of one time for co-curricular credit. Find eligible courses on the [General Education](#) page.

Course	Credits

#### Free Electives: 5 to 9 credits

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

Course	Credits