

**Michigan Technological University****Bachelor of Science Degree Audit****Major Program: Biological Sciences, Concentration: Pre-Professional**

Program Code: SBL5, Academic Year 2019-20

Total credits required for the degree: 128

**Biology Requirements: 26 credits**

Course	Credits
BL 1010	4
BL 1020	4
BL 2100	3
BL 2200	3
BL 3012	3
BL 3190	3
BL 3400	4
BL 3782	2

**Chemistry Requirements: 19 credits**

Course	Credits
CH 1150 and CH 1151 and CH 1153	3 1 1
CH 1160 and CH 1161 and CH 1163	3 1 1
CH 2410 and CH 2411	3 1
CH 2420 and CH 2421	3 2

**Mathematics Requirements: 7 credits**

Course	Credits
MA 1135	4
MA 3715	3

**Physics Requirements: 8 credits**

Course	Credits
PH 1110 and PH 1111	3 1
PH 1210 and PH 1200	3 1

**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 2 1

**Concentration Requirements: 28 to 29 credits**

Course	Credits

Select either the [Biochemistry](#) or [Holistic Focus](#):

**Biochemistry Focus: 12 credits**

Recommended for Medical, Dental, Veterinary, Pharmacy, Optometry, Physician Assistant, and Podiatry

Course	Credits
BL 3300 or BL 4030	3
BL 3640	3
BL 4010	3
BL 4020	3

**Holistic Focus: 13 credits**

Recommended for Physical Therapy, Occupational Therapy, and Chiropractic

Course	Credits
BL 2940	3
BL 3xxx / 4xxx elective	3
BL 3xxx / 4xxx elective	3
KIP 4100 and KIP 4110	3 1

## 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: 12 to 14 credits

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

Course	Credits