

B.S. Biochemistry and Molecular Biology Degree (SMBC)

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

First Year

Fall

Course	Credit
CH 1150 University Chemistry I AND	3
CH 1151 University Chemistry Lab 1 AND	1
CH 1153 University Chemistry I Recitation	1
CH 1130 PFDC 1: Orientation	1
BL 1400 Principles of Biology AND BL 1410 Principles of Biology Laboratory	4
MA 1160 Calculus with Technology I	4
UN 1015 Composition (OR UN 1025 Global Issues)	3
Total	17

Spring

Course	Credit
CH 1160 University Chemistry II AND	3
CH 1161 University Chemistry Lab II. AND	1
CH 1163 University Chemistry II Recitation	1
PH 1100 Physics by Inquiry I	1
PH 2100 University Physics I – Mechanics	3
MA 2160 Calculus with Technology II	4
UN 1025 Global Issues (OR UN 1015 Composition)	3
Total	16

Second Year

Fall

Course	Credit
CH 2130 PDFC 2: Career Planning	2
CH 2430 Mechanistic Organic Chemistry	3
CH 2411 Organic Chemistry Lab I	1
PH 1200 Physics by Inquiry II	1
PH 2200 University Physics II – Electricity & Magnetism	3
BL 2700 Computational Biology	3
General Education: Critical & Creative Thinking	3
Total	16

Spring

Course	Credit
CH 2440 Synthetic Organic Chemistry	3
CH 2421 Organic Chemistry Lab II	2
MA 2321 Elementary Linear Algebra	2
MA 3521 Elementary Differential Equations	2
BL 2200 Genetics	3
General Education: Social Responsibility & Ethical Reasoning	3
Total	15

Third Year

Fall

Course	Credit
CH 3510 Physical Chemistry I	3
CH 3511 Physical Chemistry Lab I	2
CH 4710 Biomolecular Chemistry I	3
BL3210 Microbiology	4
BL 3300 Genomics	3
General Education HASS	3
Total	18

Spring

Course	Credit
CH 3130 PDFC 3: Communication	1
CH 3540 Biophysical Chemistry	3
CH 3541 Biophysical Chemistry Lab	2
CH 4720 Biomolecular Chemistry II	3
General Education HASS	3
Free Elective	3
Total	15

Fourth Year

Fall

Course	Credit
CH 4222 Bioanalytical Chemistry	5
BL 4030 Molecular Biology	3
CH 4995 Undergraduate Research in Biochemistry (see note)	6
General Education HASS	3
Total	17

Spring

Course	Credit
CH 4130 PDFC 4: Senior Seminar	2
Free Electives	6
CH 4721 Research Methods in Biomolecular Chemistry	3
General Education HASS	3
Total	14

Grand Total = 128 Credits

NOTES

Concentration Requirements: Plan features 6 credits of CH 4995. Alternative option is to take BL 4840 AND 3 credits of CH or BL 3000-4000 course(s). The plan features all credits of CH 4995 Undergraduate Research in Biochemistry in one term, but these credits may be split across semesters as student and advisor deem appropriate.

3 Units of co-curricular activities are required.

Revised 09/07/2021