

Department:	Undergraduate Biochemistry Program
Course Plan to Complete a:	B.S. in Biochemistry (These are the biochemistry major requirements with the CHEM 031, 032, 141, 142 option)

Biochemistry, B.S. (Catalogue)

Year 1							
Fall				Spring			
Prefix	Course #	Course Name (catalogue)	Credits	Prefix	Course #	Course Name (catalogue)	Credits
CHEM	031	*General Chemistry 1	4	CHEM	032	*General Chemistry 2	4
BCOR	011	*Exploring Biology	4	BCOR	012	*Exploring Biology 2	4
MATH	021	Calculus 1	4	MATH	022	Calculus 2	4
		TAP Seminar	3			Distribution	3
			15				15
Year 2							
Fall				Spring			
Prefix	Course #	Course Name (catalogue)	Credits	Prefix	Course #	Course Name (catalogue)	Credits
BCOR	101	Genetics	3	BCOR	103	Molecular & Cell Biology	4
CHEM	47	*Organic Chemistry for Majors 1	4	CHEM	48	*Organic Chemistry for Majors 2	4
PHYS	PHYS 051	*Fundamentals of Physics I	4-5	PHYS	PHYS 152	*Fundamentals of Physics II	4-5
		Sustainability	3			Distribution	3
			14-15				15-16
Year 3							
Fall				Spring			
Prefix	Course #	Course Name (catalogue)	Credits	Prefix	Course #	Course Name (catalogue)	Credits
BIOC	205	Biochemistry 1	3	BIOC	206	Biochemistry II	3
		Undergraduate Research or Elective	3	BIOC	207	Biochemistry Lab	3
		D1 Diversity	3	CHEM	165	Intro Physical Chemistry	3
STAT	141	QR:Basic Statistical Methods 1	3			Advanced Biochemistry-related elective/Undergraduate Research	3
		Distribution	3			One course from choice of intermediate-level lab electives (see below) or Elective	2-4
			15				14-16
Year 4							
Fall				Spring			
Prefix	Course #	Course Name (catalogue)	Credits	Prefix	Course #	Course Name (catalogue)	Credits
		One course from choice of intermediate-level lab electives (see below) or Elective	2-4	BIOC	284	Senior Seminar	1
		Advanced Biochemistry-related elective	3			Advanced Biochemistry-related elective	3
		Distribution	3			Distribution	3
		Distribution	3			Distribution	3
		D2 - Diversity (Non-European Cultures Course)	3			Elective	3
						Elective	3
			14-16				16

This is merely one suggested route to completing a major in Biochemistry.

The path followed by students will depend on their how soon they enter the major, their desired pace, other academic plans.

MAJOR:

Required Core: BCOR 011, 012, 101, 103, MATH 021, 022, PHYS 051, 152, CHEM 051, 052, 047, 048, 165, BIOC 205, 206, 207.

9 credits of advanced biochemistry-related electives:

[Pre-approved upper-level electives for B.S. in Biochemistry](#).

Choose one Intermediate-level lab elective course from: MMG 104 or BIOL 205 (offered Spring semester) or CHEM 121 or MMG 201 or BIOL 204 (offered Fall semester).

Choose one of: BIOC 284 OR HON 275 and HON 276.

*Acceptable **substitutions** (however, the courses listed above will provide a better foundation for the Biochemistry degree):

(a) BIOL 001/002 for BCOR 011/012;

(b) CHEM 141 & 142 for CHEM 047 & 048;

(c) PHYS 11/12 with 21/22 for PHYS 51/152;

Distribution Requirements: B.S. degrees in the College of Arts and Sciences will be required to complete the following:

Natural Sciences: two courses with labs from specific departments, as defined by the major.

Mathematical Sciences: Two courses as defined by the major requirements.

Social Sciences: Two 3-credit courses in social science disciplines

● **In addition, B.S. degree students are required to complete course in TWO of the following THREE categories:**

Fine Arts disciplines and Literature disciplines (two courses- one course in each area)

Foreign Language: two courses in the same foreign language

Humanities: two 3-credit courses in a humanities discipline

General Requirements:

One Diversity Category 1 course – minimum 3 credits

One Diversity Category 2 course from list of D2 Non-European Cultures courses – minimum 3 credits

One Sustainability Category course - minimum 3 credits

One Writing and Information Literacy course– minimum 3 credits

One Quantitative Reasoning course–minimum 3 credits

>>>A TAP course will satisfy UVM's Writing and Information Literacy requirement and might also count toward a distribution.

>>>Sustainability courses and Diversity courses might also count toward a distribution.

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