Department:	**Undergraduate Biochemistry Program**
Course Plan to Complete a:	***B.S. in Biochemistry***

Biochemistry, B.S. (Catalogue)

Year 1							
Fall				***Spring***			
Prefix	*Course #*	*Course Name (catalogue)*	*Credits*	*Prefix*	*Course #*	*Course Name (catalogue)*	*Credits*
CHEM	047	*Organic Chemistry for Majors 1	4	CHEM	048	*Organic Chemistry for Majors 2	4
CHEM	051	*Exploring Chemistry 1	1	CHEM	052	*Exploring Chemistry 2	1
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
			16				16
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
BIOC	205	Biochemistry 1	3	BIOC	206	Biochemistry 2	3
PHYS	051	*Fundamentals of Physics 1	4	PHYS	*152	Fundamentals of Physics 2	4
		Sustainability	3			Distribution	3
		Distribution	3				
			16				14
Year 3							
Fall				***Spring***			
Prefix	*Course #*	*Course Name (catalogue)*	*Credits*	*Prefix*	*Course #*	*Course Name (catalogue)*	*Credits*
		Advanced Biochemistry-related elective/Undergraduate Research	3	BIOC	207	Biochemistry Lab	3
		Distribution	3	CHEM	165	Intro Physical Chemistry	3
		D1 Diversity	3			Advanced Biochemistry-related elective/Undergraduate Research	3
STAT	141	QR:Basic Statistical Methods 1	3			D2 - Diversity (Non-European Cultures Course)	3
		Elective	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
		Elective	3			Elective	3
		Elective	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.
Twelve credits of "BIOC Electives" are required to graduate (up to four credits of undergraduate research may count toward this total). A list of electives may be found at
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 031, 032, 141, & 142 for CHEM 047, 048, 051, 052, and one upper-level elective course.
(c) PHYS 11/12 with 21/22 for PHYS 51/152

A note to pre-health students:
Most medical programs require 16 credits of chemistry coursework, which is typically fulfilled by taking general chemistry and organic chemistry.
To fulfill this requirement, Biochemistry majors who are pre-health should take CHEM 131 (Inorganic Chemistry, 3 Credits) as part of their upper-level elective requirements.
CHEM 131 in combination with CHEM 51, 52, and 165, fulfill the requirements for General Chemistry
and the Department of Chemistry can provide a letter confirming this fact to Medical Schools if necessary.

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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