



**B.S. in Biochemistry**  
**BIOCHEMBS.2018** (mrs 1476)  
**60 credits**

Effective Date: 09/2018

<b>Name of Student:</b>		
<b>Student ID #:</b>		Graduation Date
<b>Home Country:</b>	<input type="checkbox"/> IWORK	
<b>Advisor:</b>	Name	Date

**Science Core Requirements** **12 Credits**

Course #	Title	Hr.	Prerequisites	Offered	Sem.	Grade
BIOL 112/L	Biology I – Cell and Molecular Biology/Lab	4		F,W,S		
CHEM 105/L	General Chemistry I/Lab	4	MATH 110 w/C- or better (MATH 110 can be a corequisite if MATH 101 was completed-see Advisor), or ACT Math score 22+ or SAT Math score 520+. (High School Chemistry or CHEM 101 highly recommended)	F,W		
CHEM 106/L	General Chemistry II/Lab	4	CHEM 105/L w/C- or better	W,S		

**Major Core Requirements** **36 Credits**

CHEM 201	Chemical and Laboratory Safety	1	CHEM 105/L	F,W,S		
CHEM 326/L	Analytical Biochemistry/Lab	4	CHEM 106/L w/C- or better, CHEM 201 (co- or prerequisite)	F		
CHEM 351	Organic Chemistry I	3	CHEM 106/L w/C- or better, CHEM 201 (co- or prerequisite)	F,W		
CHEM 351L	Organic Chemistry Lab	1	Co- or prerequisite: CHEM 351	F		
CHEM 352	Organic Chemistry II/Lab	3	CHEM 351 w/C- or better	F,W		
CHEM 352L	Organic Chemistry II Lab	1	CHEM 351/L and co- or prerequisite: CHEM 352	W		
CHEM 481	Biochemistry I	3	BIOL 112/L w/C- or better, CHEM 351 w/C- or better (completion of BIOL 376 or 441 is strongly recommended)	F,S		
CHEM 482	Biochemistry II	3	CHEM 481 w/C- or better	W		
CHEM 483L	Biochemistry Methods Lab I – Proteins	1	Co- or prerequisite: CHEM 481	F,S		
CHEM 484L	Biochemistry Methods Lab II – Nucleic Acids	1	Co- or prerequisite: CHEM 482	W		
CHEM 468	Physical Biochemistry	3	CHEM 481 w/C- or better, PHYS 121 w/C- or better; (completion of PHYS 221 is recommended)	W		
CHEM 491	Undergraduate Research	1	CHEM 351/L (completion of CHEM 326/L or CHEM 481 and 483L is recommended)	S		
CHEM 492-4	Undergraduate Research	3	CHEM 491	F-F-W		
PHYS 121/L	General Physics I/Lab	4	MATH 212 and either High School Trigonometry or MATH 111	F,W		
PHYS 220/L or PHYS 221/L	General Physics II/Lab General Physics III/Lab	4	PHYS 121/L, (Completion of MATH 213 is recommended)	F,W S		

**Chemistry Electives – Choose One** **Minimum 3 Credits**

CHEM 395	Organic Spectroscopy	3	CHEM 352/L	S-odd		
CHEM 450	Advanced Organic Synthesis	3	CHEM 352/L	S-even		
CHEM 370	Inorganic Chemistry	3	CHEM 106/L	Variable		

**Biology Electives** **Minimum 9 Credits**

BIOL 220	Microbiology	3	BIOL 112/L, CHEM 105/L	S		
BIOL 220L	Microbiology Lab	1	Co- or prerequisite: BIOL 220	F,W,S		
BIOL 260/L	Human Anatomy/Lab	3	BIOL 113, CHEM 105/L	W		
BIOL 261/L	Human Physiology/Lab	4	BIOL 113, CHEM 105/L	F		
BIOL 340 or MATH 121	Biostatistics	3	BIOL 113, CHEM 105/L	S		
	Principles of Statistics		MATH 107 or 110	F,W,S		
BIOL 373	Human Embryology	3	BIOL 113, CHEM 105	F		
BIOL 376	Genetics	3	BIOL 113, CHEM 105/L	F,W		
BIOL 441	Molecular Biology	3	BIOL 112/L, CHEM 106/L (completion of BIOL 220 or 376 is strongly recommended)	F		
BIOL 442	Cellular Biology	3	BIOL 112/L, CHEM 106/L (completion of BIOL 376 is strongly recommended)	W		
BIOL 460	Advanced Human Anatomy	3	BIOL 260/L, Permission of Instructor	F		
BIOL 465	Principles of Physiology	3	BIOL 113, CHEM 106/L	F		
BIOL 485L or	Biomolecular Methods Lab III – Mammalian Cells	1	Co- or prerequisite: Any of the following: CHEM 481, CHEM 482, BIOL 441 or BIOL 442	S		
CHEM 485L	Biochemistry Methods Lab III – Mammalian Cells			W		

**Total Credits Mapped for Graduation:**

**Grade policy**

All students majoring in Biochemistry are expected to achieve a grade of C- or higher in their major courses. However, we will allow D grades as passing in all courses except in specified prerequisites (BIOL 112/L, CHEM 105/L, CHEM 106/L, CHEM 351/L, CHEM 481, and PHYS 121/L) and as long as the number of credits from D grades does not exceed the allowed maximum (12 credits), as outlined by the BYU-Hawaii policy for graduation requirements.

The terms of this MRS will be honored by the Department and University within the next 8 years. If courses cease to be offered, options for substitution will be provided.

Last Revision 11/6/18