



B.S. in Biochemistry
BIOCHEMBS.2015 (mrs 632)
62 credits, incl. 12 GE credits

Effective Date: 08/2015

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

Science Core **15 Credits**

Course #	Title	Hr.	Prerequisites	Offered	Sem.	Grade
BIOL 112	Biology for Majors (GenEd)	3		F, W, S		
CHEM 105/L	General Chemistry I/Lab (GenEd -3)	4	MATH 110	W, S		/
CHEM 106/L	General Chemistry II/Lab	4	CHEM 105/L	F, S		/
BIOL 265/L	Molecular & Cell Biology	4	BIOL 112, CHEM 105/L	F, W, S		/

Chemistry Core **24 Credits**

CHEM 351/L	Organic Chemistry I/Lab	4	CHEM 106/L	W		/
CHEM 352/L	Organic Chemistry II/Lab	4	CHEM 351/L	S		/
CHEM 326/L	Analytical Biochemistry/Lab	4	CHEM 106/L	F		/
CHEM 381/L	Biochemistry I/Lab	4	CHEM 352/L, BIOL 265/L	F, W		/
CHEM 382/L	Biochemistry II/Lab	4	CHEM 381/L	W, S		/
CHEM 468/L	Physical Biochemistry/Lab	4	CHEM 381/L, PHYS 121	W		/

Chemistry Electives **3 Credits**
Select 3 credits from list

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

Senior Research **4 Credits**

CHEM 491	Undergrad Research (GenEd)	1	Completion or concurrent enrollment in CHEM 352/L	F		
CHEM 492-4	Undergrad Research (GenEd)	3	CHEM 491	S		

Required Supporting Biology Course **4 Credits**

BIOL 441/L	Advanced Molecular Biology/Lab	4	Science Core	W		/
------------	--------------------------------	---	--------------	---	--	---

Biology Electives **4 Credits**
Select 4 credits from list

BIOL 320/L	Pathogenic Microbiology	4	Science Core and BIOL 220/L	S-even		
BIOL 330/L	Bioinformatics	4	Science Core	S-odd		/
BIOL 376/L	Genetics/Lab	4	½ Science Core	F,S		
BIOL 442/L	Advanced Cellular Biology	4	Science Core	S		
BIOL 445/L	Immunology	4	Science Core	F		/
BIOL 465/L	Principles of Physiology/Lab	4	Science Core	W		/

Required Physics Courses **8 Credits**
Take PHYS 121/L and PHYS 122/L or PHYS 221/L

PHYS 121/L	General Physics I (GenEd - 3)	4	MATH 112 and either High School Trigonometry or MATH 111	F, S		/
PHYS 220/L or PHYS 221/L	General Physics II General Physics III	4	PHYS 121/L PHYS 121/L	F, S W		/ /

Recommended Course for Graduate School Prerequisites and Entrance Exams Preparation

MATH 113	Calculus II (GenEd)	5	MATH 112	F, W		
----------	---------------------	---	----------	------	--	--

Total Credits Mapped for Graduation:

- To graduate with a major in Biochemistry, a student cannot have a grade lower than C- in a major course.
- Only one major course can be repeated* without department permission. If after a repeat the achieved grade is still lower than C-, a student will not be able to continue in the Biochemistry major.
- If a second or third major course is failed, a repeat* may be permitted only with authorization from the Department Chair, or the Department Chair and the Dean respectively.
- Students with four or more major courses failed will not be able to continue in the Biochemistry major.
 * Repeat because of a grade lower than C-

Note: Anatomy & microbiology may be required for prerequisites for some professional programs.

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.



B.S. in Biochemistry
BIOCHEMBS.2016 (mrs 1207)
62 credits, incl. 12 GE credits

Effective Date: 11/2016

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

Science Core Requirements **12 Credits**

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

Major Core Requirements **41 Credits**

CHEM 201	Chemical & Laboratory Safety	1	CHEM 105/L	F,W,S		/
CHEM 326/L	Analytical Biochemistry/Lab	4	CHEM 106/L, CHEM 201 (co- or prerequisite)	F		/
CHEM 351/L	Organic Chemistry I/Lab	4	CHEM 106/L, CHEM 201 (co- or prerequisite)	W		/
CHEM 352/L	Organic Chemistry II/Lab	4	CHEM 351/L	S		/
CHEM 381/L	Biochemistry I/Lab	4	CHEM 352/L, BIOL 112/L, (completion of BIOL 376 or 441 is strongly recommended)	F, W		/
CHEM 382/L	Biochemistry II/Lab	4	CHEM 381/L	W, S		/
CHEM 468/L	Physical Biochemistry/Lab	4	CHEM 381/L, PHYS 121	W		/
CHEM 491	Undergraduate Research	1	CHEM 352/L (co- or prerequisite)	F		/
CHEM 492-4	Undergraduate Research	3	CHEM 491	S		/
BIOL 441/L	Molecular Biology/Lab	4	BIOL 112/L, CHEM 106/L (completion of BIOL 220 or 376 is strongly recommended)	W		/
PHYS 121/L	General Physics I/Lab	4	MATH 112 and either High School Trigonometry or MATH 111	F, S		/
PHYS 220/L or PHYS 221/L	General Physics II/Lab General Physics III/Lab	4	PHYS 121/L, (MATH 113 is strongly recommended, but not required)	F, S W		/

Chemistry Electives **3 Credits**

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

Biology Electives **minimum 6 Credits**

BIOL 220/L	Microbiology/Lab	4	BIOL 112/L, CHEM 105/L	F,W		/
BIOL 260/L	Elementary Human Anatomy/Lab	3	BIOL 113, CHEM 105/L	W		/
BIOL 261/L	Elementary Human Physiology/Lab	4	BIOL 113, CHEM 105/L	F		/
BIOL 340 or MATH 221	Biostatistics Principles of Statistics	3	BIOL 113, CHEM 105/L MATH 110 or 106	S-odd F,W,S		/
BIOL 376/L	Genetics/Lab	4	BIOL 113, CHEM 105/L	F,S		/
BIOL 442/L	Cellular Biology/Lab	4	BIOL 112/L, CHEM 106/L (completion of BIOL 376 is strongly recommended)	S		/
BIOL 460	Advanced Human Anatomy	3	Permission of Instructor	F		/
BIOL 465/L	Principles of Physiology/Lab	4	BIOL 113/L, CHEM 106/L	W		/

Total Credits Mapped for Graduation:

Grade policy

- To graduate with a major in Biochemistry, a student cannot have a grade lower than C- in a core course and can only repeat* up to three courses in the major.
 - One repeat* is allowed per major course. If after a repeat the grade is still lower than C-, a student will not be able to continue in the Biochemistry major (for an exception, see 5).
 - A repeat* of a second major course would be permitted only with the authorization from the department chair.
 - A repeat* of a third major course would be permitted only with authorizations from the department chair and the dean.
 - A student may have a D grade in one major elective course.
- * Repeat because of a grade lower than C-