

BIOCHEMISTRY AND MOLECULAR BIOLOGY

BACHELOR OF SCIENCE (B.S.)

CORE Requirements	Credits	Major Requirements	Credits	Major Requirements	Credits	Free Electives ⁵	Credits
CORE 090 First Yr Exp.	1	BMB 110L	1	CHEM 113	3	Free Elective	3
CORE 100 Lib Arts Sem.	3	BIOL 113	3	CHEM 113L	1	Free Elective	3
CORE 110 Effect Writ.	3	BIOL 113L	1	CHEM 114	3		
CORE 115 or 116 Oral Comm.	3	BIOL 213	3	CHEM 114L	1		
CORE 131 or 133 Civilization	3	BIOL 213L	1	CHEM 241	3		
CORE 140 or 141-145 Forgn.	3	BIOL 353 ²	3	CHEM 241L	1		
CORE 150-159 Soc. Sci. ¹	3	BMB 353L	2	CHEM 242	3		
CORE 160-164 Literature	3	BIOL 370 ³	2	CHEM 242L	1		
CORE 170-179 The Arts	3	BMB Elective*	3	CHEM 243	3		
CORE 180-189 Amer. Studies ¹	3	BMB Elective*	3	CHEM 243L	2		
CORE 190-199 Global Studies ¹	3	BMB Elective*	3	CHEM 244	3		
CORE 250-259 Syst. Theology	3	BMB Elective*	3	CHEM 244L	2		
CORE 260-269 Mor. Theology	3	BMB 455 ⁴	1	MATH 129	4		
CORE 280 Philos. I	3	BMB 456 ⁴	1	MATH 130	4		
CORE 281-289 Philos. II	3	PHYS 113	3	PHYS 113L	1		
		PHYS 114	3	PHYS 114L	1		
Total Credits for CORE	43			Total Credits for Major	72	Total Credits for Free Electives	6

Total Credits Required for Graduation = 121

*In addition to the Major Sequence requirements, a BMB Major must also complete a minimum of four (4) upper-level courses from the following list. One of these upper-level courses must be research intensive (consult with Biochemistry advisor). Upper level CHEM or BIOL courses not on this list may be substituted at the discretion of the Biochemistry advisor.

Biochemistry Electives (must choose 4):

BIOL 314	Microbiology	BIOL 456	Molecular Neuroscience
BIOL 323	Genetics	BIOL 490/491	Senior Research
BIOL 326	Immunology	CHEM 357	Physical Chemistry I
BIOL 330	Introduction to Bioinformatics	CHEM 471	Advanced Inorganic Chemistry
BIOL 336	Cell Biology	CHEM 475	Advanced Analytical Chemistry
BIOL 450	Molecular Genetics	CHEM 496/497	Senior Research

¹Students are required to take CORE 150, CORE 180 **OR** CORE 190 to fulfill the Interdisciplinary CORE requirement.

- If a student takes CORE 150, then he/she should choose from 181 – 188 to fulfill the 18x requirement AND from 191 – 198 to fulfill the 19x requirement.
- If a student takes CORE 180, then he/she should choose from 151 – 158 to fulfill the 15x requirement AND from 191 – 198 to fulfill the 19x requirement.
- If a student takes CORE 190, then he/she should choose from 151 – 158 to fulfill the 15x requirement AND from 181 – 188 to fulfill the 18x requirement.

²Taking BIOL353/CHEM 353 in the Fall of junior year is encouraged, but it can be taken in the Spring if offered, with a BMB elective and CORE in the Fall semester junior year instead

³Sophomore/Junior Diagnostic Project (Fall or Spring Semester of Junior Year)

⁴Senior Integrated Assessment (Fall and Spring Semester of Senior Year)

⁵Students may select “free electives” for personal enrichment **OR** for Minor and/or Second Major Requirements.

General Information:

A student must earn a minimum of 120 credit hours to be awarded the baccalaureate degree. The number of credit hours required for graduation may be higher in certain major programs **or** if the student elects to pursue a second major.

Beyond the requirements of the Core Curriculum and of a student’s chosen major program, the balances of the credit hours required for graduation are “free electives.”

BIOCHEMISTRY AND MOLECULAR BIOLOGY

SUGGESTED SEQUENCE

- Use the information below as a guide when selecting courses. †
- Refer to the reverse side when selecting major courses, major electives, core courses, and free electives when applicable.
- Consult your Academic Advisor prior to course registration.
- Refer to the King's College Catalog and/or website for course titles and descriptions.
- Choose one course from each CORE category as listed on the reverse side.
 - CORE courses may be taken in any order approved by the academic advisor with the following conditions:
 - CORE 100 and CORE 110 should be taken in the first year.
 - CORE 115 (or 116) should be taken within the first two years.
 - For students selecting a Foreign Language (CORE 14x), every effort should be made to register for that language in the first semester at King's.

1 st Year - Fall		cr.	1 st Year - Spring		cr.
_____	BIOL 113 Evolution & Diversity	3	_____	BMB 110L Intro to Biochemical Techniques	1
_____	BIOL 113L Evolution & Diversity Lab	1	_____	CHEM 114 General Chemistry II	3
_____	CHEM 113 General Chemistry I	3	_____	CHEM 114L General Chemistry II Lab	1
_____	CHEM 113L General Chemistry I Lab	1	_____	MATH 130 Analytic Geometry & Calculus II	4
_____	MATH 129 Analytic Geometry & Calculus I	4	_____	CORE	3
_____	CORE	3	_____	CORE	3
_____	CORE 090 First Year Experience	1			
		16			15
2 nd Year - Fall			2 nd Year - Spring		
_____	BIOL 213 Cell & Molecular Biology	3	_____	CHEM 244 Instrumental Analysis	3
_____	BIOL 213L Cell & Molecular Biology Lab	1	_____	CHEM 244L Instrumental Analysis Lab	2
_____	CHEM 241 Organic Chemistry I	3	_____	CHEM 242 Organic Chemistry II	3
_____	CHEM 241L Organic Chemistry I Lab	1	_____	CHEM 242L Organic Chemistry II Lab	1
_____	CHEM 243 Analytical Chemistry	3	_____	CORE	3
_____	CHEM 243L Analytical Chemistry Lab	2	_____	CORE	3
_____	CORE	3			
		16			15
3 rd Year - Fall			3 rd Year - Spring		
_____	BIOL 353 Biochemistry	3	_____	BMB Elective	3
_____	BMB 353L Adv. Biochemical Techniques	2	_____	PHYS 114 Physics for Sci. & Eng. II	3
_____	BIOL 370 Junior Seminar	2	_____	PHYS 114L Physics for Sci. & Eng. II Lab	1
_____	PHYS 113 Physics for Scientists & Engineers I	3	_____	CORE	3
_____	PHYS 113L Physics for Sci. & Eng. I Lab	1	_____	CORE	3
_____	CORE	3	_____	Free Elective	3
_____	CORE	3			
		17			16
4 th Year - Fall			4 th Year - Spring		
_____	BMB 455 Senior Colloquium	1	_____	BMB 456 Senior Colloquium	1
_____	BMB Elective	3	_____	BMB Elective	3
_____	BMB Elective	3	_____	CORE	3
_____	CORE	3	_____	CORE	3
_____	CORE	3	_____	Free Elective	3
		13[†]			13[†]

Total Credits Required for Graduation = 121

†The standard semester course load is five courses consisting of 15 – 17 credits. A student may take 18 credits if the science lab puts them over 17 credits. (for more information about credit loads, please see the college catalog)