# SAMPLE 4-YEAR PLAN: BIOLOGY B.A. - B.S.

## **Northern Kentucky University**

This is one way a student can complete this program in four years if the student enters NKU with a mathematics ACT score of 25 or higher.

MAJOR: Biology

TRACK: B.S. General Biology

FIRST YEAR	Fall Semester		Spring Semester	
In addition to these courses for your	BIO 150 Introduction to	4	BIO 151 Introduction to	4
major, you should be taking an	Biology and BIO 150L		Biology II and BIO 151L	
appropriate mathematics course and	Introduction to Biology Lab		Introduction to Biology II	
consider taking a foreign language if			Laboratory	
you are continuing a language from	CHE 120 General Chemistry I	4	CHE 121 General Chemistry II	4
high school.	and CHE 120L General		and CHE 121L General	
	Chemistry Lab I Laboratory		Chemistry II Laboratory	
	ENG 101 College Writing	3	STA 205 Introduction to	3
			Statistical Methods	
	BIO 155 Orientation to	1	Oral Communication	3
	Biology			
	Individual & Society I	3		
	TOTAL	15	TOTAL	14
SECOND YEAR	Fall Semester		Spring Semester	
	Bio 304 General Ecology	4	BIO 349 Genetics	4
	Bio 304L Gen Ecology Lab		Bio 349L Genetics Lab	
	BIO 291W Advanced Writing	3	Cultural Pluralism	3
	in Biology			
	CHE 310 Organic Chemistry	4	CHE 311 Organic Chemistry II	4
	and CHE 310L Organic		and CHE 311L*Organic	
	Chemistry Laboratory		Chemistry II Laboratory	
	Foreign Language I	3	Foreign Language 2	3
	Elective	3	Elective	3
	TOTAL	17	TOTAL	17
	Fall Semester	Spring Semester		
THIRD YEAR			CMC** Flactive	
The electives chosen should be from	EEO** elective	4	CMG** Elective	4
The electives chosen should be from the appropriate course groups to fulfill		3	Culture and	3
The electives chosen should be from	MAT 112, 128 or 129		Culture and Creativity II	3
The electives chosen should be from the appropriate course groups to fulfill			Culture and	
The electives chosen should be from the appropriate course groups to fulfill	MAT 112, 128 or 129 PHY 211 General Physics with Laboratory	3	Culture and Creativity II PHY 213 General Physics with Laboratory II	3 5
The electives chosen should be from the appropriate course groups to fulfill	MAT 112, 128 or 129 PHY 211 General Physics	3	Culture and Creativity II PHY 213 General Physics	3
The electives chosen should be from the appropriate course groups to fulfill	MAT 112, 128 or 129 PHY 211 General Physics with Laboratory Individual & Society II	5	Culture and Creativity II PHY 213 General Physics with Laboratory II Elective 300 level or above	3 5 3
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.	MAT 112, 128 or 129 PHY 211 General Physics with Laboratory Individual & Society II  TOTAL	5	Culture and Creativity II PHY 213 General Physics with Laboratory II Elective 300 level or above	3 5
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR	MAT 112, 128 or 129 PHY 211 General Physics with Laboratory Individual & Society II  TOTAL Fall Semester	3 5 3 15	Culture and Creativity II PHY 213 General Physics with Laboratory II Elective 300 level or above  TOTAL  Spring Semester	3 5 3 <b>15</b>
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR The electives chosen should be from	MAT 112, 128 or 129  PHY 211 General Physics with Laboratory Individual & Society II  TOTAL  Fall Semester  BIO elective	3 5 3 15	Culture and Creativity II PHY 213 General Physics with Laboratory II Elective 300 level or above  TOTAL  Spring Semester BIO elective	3 5 3 <b>15</b>
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR The electives chosen should be from the appropriate course groups to fulfill	MAT 112, 128 or 129 PHY 211 General Physics with Laboratory Individual & Society II  TOTAL Fall Semester	3 5 3 15	Culture and Creativity II PHY 213 General Physics with Laboratory II Elective 300 level or above  TOTAL  Spring Semester BIO elective BIO 491 Comprehensive	3 5 3 <b>15</b>
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In	MAT 112, 128 or 129  PHY 211 General Physics with Laboratory Individual & Society II  TOTAL  Fall Semester  BIO elective  BIO 458 Evolution	3 5 3 15 4 3	Culture and Creativity II  PHY 213 General Physics with Laboratory II  Elective 300 level or above  TOTAL  Spring Semester  BIO elective  BIO 491 Comprehensive Examination	3 5 3 15 4
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you	MAT 112, 128 or 129  PHY 211 General Physics with Laboratory Individual & Society II  TOTAL  Fall Semester  BIO elective BIO 458 Evolution  Elective 300 level or above	3 5 3 15 4 3	Culture and Creativity II  PHY 213 General Physics with Laboratory II  Elective 300 level or above  TOTAL  Spring Semester  BIO elective  BIO 491 Comprehensive Examination  Elective 300 level or above	3 5 3 15 4 0
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you have taken enough classes at the 300	MAT 112, 128 or 129  PHY 211 General Physics with Laboratory Individual & Society II  TOTAL  Fall Semester BIO elective BIO 458 Evolution  Elective 300 level or above Global Viewpoints	3 5 3 15 4 3 3	Culture and Creativity II PHY 213 General Physics with Laboratory II Elective 300 level or above  TOTAL  Spring Semester BIO elective BIO 491 Comprehensive Examination Elective 300 level or above Elective 300 level or above	3 5 3 15 4 0
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you	MAT 112, 128 or 129  PHY 211 General Physics with Laboratory Individual & Society II  TOTAL  Fall Semester  BIO elective BIO 458 Evolution  Elective 300 level or above	3 5 3 15 4 3 3	Culture and Creativity II  PHY 213 General Physics with Laboratory II  Elective 300 level or above  TOTAL  Spring Semester  BIO elective  BIO 491 Comprehensive Examination  Elective 300 level or above	3 5 3 15 4

#### Notes:

\*\* Refer to the Biological Sciences Course Groups for lists of courses.

MAJOR: Biology

TRACK: B.S. Cell/Molecular/Genetics

	- "-				
FIRST YEAR	Fall Semester		Spring Semester		
	BIO 150 Introduction to	4	BIO 151 Introduction to	4	
	Biology and BIO 150L		Biology II and BIO 151L		
	Introduction to Biology I		Introduction to Biology II		
	Laboratory	4	Laboratory	4	
	CHE 120 General Chemistry I	4	CHE 121 General Chemistry II	4	
	and CHE 120L General		and CHE 121L General		
	Chemistry I with Laboratory		Chemistry II Laboratory STA 205 Introduction to		
	ENG 101 College Writing	3	Statistical Methods	3	
	Individual 9 Coninty I			3	
	Individual & Society I	3	Oral Communication	3	
	BIO 155 Orientation to	1			
	Biology TOTAL	15	TOTAL	14	
SECOND YEAR	Fall Semester		Spring Semester		
SECOND TEAR	BIO 349 Genetics and BIO		BIO 302 General Microbiology	1	
	349L Genetics Laboratory	4	Bio 302L General Microbiology	4	
	BIO 291W Advanced Writing	2	CHE 311 Organic Chemistry II	4	
	in Biology	3	and CHE 311L Organic	7	
	III Diology		Chemistry II Laboratory		
	CHE 310 Organic Chemistry I	1	Mat 112, 128 or 129	3	
	and CHE 310L Organic	7	Wat 112, 120 01 129	3	
	Chemistry I with Laboratory				
	Foreign Language 101	3	Foreign Language 102	3	
	1 Greight Language 101		1 oreign Language 102		
	TOTAL	14	TOTAL	14	
	Fall Semester		Spring Semester		
THIRD YEAR	Fall Semester		Spring Semester		
THIRD YEAR The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.	Fall Semester Che 482 Biochemistry I	3	Spring Semester Che 483 Biochemistry II	3	
The electives chosen should be from the appropriate course groups to fulfill	Che 482 Biochemistry I		Che 483 Biochemistry II		
The electives chosen should be from the appropriate course groups to fulfill	Che 482 Biochemistry I  PHY 211 General Physics		Che 483 Biochemistry II PHY 213 General Physics	3	
The electives chosen should be from the appropriate course groups to fulfill	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory	5	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II	5	
The electives chosen should be from the appropriate course groups to fulfill	Che 482 Biochemistry I  PHY 211 General Physics	5	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced		
The electives chosen should be from the appropriate course groups to fulfill	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism	5	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell	5	
The electives chosen should be from the appropriate course groups to fulfill	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective	5 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced	5	
The electives chosen should be from the appropriate course groups to fulfill	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective Elective	5 3 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell Individual and Society II	5 3	
The electives chosen should be from the appropriate course groups to fulfill	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective	5 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell	5 3	
The electives chosen should be from the appropriate course groups to fulfill	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective Elective	5 3 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell Individual and Society II	5 3	
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  Elective  TOTAL	5 3 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester	5 3 3 14	
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR The electives chosen should be from	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  TOTAL  Fall Semester  CMG** elective	5 3 3 17	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester  CMG** elective	5 3 3 14	
The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  Elective  TOTAL  Fall Semester	5 3 3 17	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester	5 3	
FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  TOTAL  Fall Semester  CMG** elective	5 3 3 17	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester  CMG** elective  Bio 304 General Ecology	5 3 3 14	
FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you have taken enough classes at the 300 level or above to satisfy the university	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  Elective  TOTAL  Fall Semester  CMG** elective  Bio 458 Evolution	5 3 3 17 4 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester  CMG** elective Bio 304 General Ecology	5 3 3 14 4 3	
FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you have taken enough classes at the 300 level or above to satisfy the university	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  TOTAL  Fall Semester  CMG** elective Bio 458 Evolution  Culture and Creativity	5 3 3 3 17 4 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester  CMG** elective  Bio 304 General Ecology  Global Viewpoints  Elective  Elective	5 3 3 14 4 3	
FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you have taken enough classes at the 300 level or above to satisfy the university	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  TOTAL  Fall Semester  CMG** elective  Bio 458 Evolution  Culture and Creativity  Elective 300 level or above	5 3 3 3 17 4 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester  CMG** elective  Bio 304 General Ecology  Global Viewpoints  Elective	5 3 14 4 3 3 3 3	
FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you have taken enough classes at the 300 level or above to satisfy the university	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  TOTAL  Fall Semester  CMG** elective  Bio 458 Evolution  Culture and Creativity  Elective 300 level or above	5 3 3 3 17 4 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester  CMG** elective  Bio 304 General Ecology  Global Viewpoints  Elective  Elective	5 3 14 4 3 3 3 0	
FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you have taken enough classes at the 300 level or above to satisfy the university	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  TOTAL  Fall Semester  CMG** elective Bio 458 Evolution  Culture and Creativity  Elective 300 level or above Elective	5 3 3 17 4 3 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II  Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester  CMG** elective Bio 304 General Ecology  Global Viewpoints  Elective Elective BIO 491 Comprehensive Exam	3 3 14 4 3	
FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track.  FOURTH YEAR  The electives chosen should be from the appropriate course groups to fulfill the requirements for this track. In addition, you should make sure you have taken enough classes at the 300 level or above to satisfy the university	Che 482 Biochemistry I  PHY 211 General Physics with Laboratory Cultural Pluralism  Elective  TOTAL  Fall Semester  CMG** elective Bio 458 Evolution  Culture and Creativity  Elective 300 level or above Elective  TOTAL	5 3 3 17 4 3 3 3	Che 483 Biochemistry II  PHY 213 General Physics with Laboratory II Bio 436 Advanced Biology of the Cell Individual and Society II  TOTAL  Spring Semester  CMG** elective Bio 304 General Ecology  Global Viewpoints  Elective Elective BIO 491 Comprehensive Exam TOTAL  GRAND TOTAL OF CREDITS	5 3 14 4 3 3 3 0 16	

TRACK: B. S. Ecology/Evolution/Organismal

FIRST YEAR	Fall Semester		Spring Semester		
	BIO 150 Introduction to	4	BIO 151 Introduction to	4	
	Biology and BIO 150L		Biology II and BIO 151L		
	Introduction to Biology I		Introduction to Biology II		
	Laboratory		Laboratory		
	CHE 120 General Chemistry I	4	CHE 121 General Chemistry II	4	
	and CHE 120L General		and CHE 121L General		
	Chemistry I Laboratory		Chemistry II Laboratory		
	ENG 101 College Writing	3	STA 205 Introduction to	3	
			Statistical Methods		
	BIO 155 Orientation to	1	Oral Communication	3	
	Biology				
	Individual & Society I	3	TOTAL		
	TOTAL	15	TOTAL	14	
SECOND YEAR	Fall Semester		Spring Semester		
	BIO 304 General Ecology and	4	BIO 349 Genetics	4	
	BIO 304L Ecology Laboratory		BIO 349L Genetics Lab		
	BIO 291W Advanced Writing in Biology	3	Mat 112, 128 or 129	3	
	CHE 310 Organic Chemistry I	4	CHE 311 Organic Chemistry	4	
	and CHE 310L Organic		II and CHE 311L Organic		
	Chemistry I Laboratory		Chemistry II Laboratory		
	Cultural Pluralism	3	Individual & Society II	3	
	Elective	3	Elective	3	
	TOTAL	17	TOTAL	17	
THIRD YEAR	Fall Semester		Spring Semester		
The electives chosen should be from	Bio 458 Evolution	3	EEO** elective	4	
the appropriate course groups to fulfill the requirements for this track. You	Culture & Creativity	3	BIO 342 Biometry	3	
should also continue to take courses to	PHY 211 General Physics	5	PHY 213 General Physics	5	
fulfill the general education	with Laboratory I		with Laboratory II		
requirements and your mathematics requirement.	EEO** Elective	4	Global Viewpoints	3	
requirement.	TOTAL	15	TOTAL	15	
FOURTH YEAR	Fall Semester		Spring Semester		
The electives chosen should be from	EEO** elective	4	EEO** elective	4	
the appropriate course groups to fulfill the requirements for this track.	Foreign Language 101		Foreign Language 102	3	
requirement of 45 hours. In addition,	Elective 300 level or above	3	BIO491 Comprehensive Exam	0	
you should make sure you have taken	Elective 300 level or above		Elective 300 level or above	3	
enough classes at the 300 level or	Elective		Elective	1	
above to satisfy the university	TOTAL	16	TOTAL	13	
requirement of 45 hours.			GRAND TOTAL OF CREDITS	120	
				3	

# Notes:

- \* Students in the Ecology, Evolution, Organismal track may elect to substitute GEO 418 for CHE 311 and CHE 311L
- \*\* Refer to the Biological Sciences Course Groups for lists of courses.

MAJOR: Biology

TRACK/OPTION: B.A. General Biology

FIRST YEAR	Fall Semester		Spring Semester	
	BIO 150 Introduction to	4	BIO 151 Introduction to	4
	Biology and BIO 150L		Biology II and BIO 151L	
	Introduction to Biology		Introduction to Biology II	
	Laboratory		Laboratory	
	CHE 120 General Chemistry I	4	CHE 121 General Chemistry II	4
	and CHE 120L General		and CHE 121L General	
	Chemistry I Laboratory		Chemistry II Laboratory	
	ENG 101 College Writing	3	STA 205 Introduction to	3
			Statistical Methods	
	BIO 155 Orientation to Biology	1	Oral Communication	3
	Individual & Society I	3		
	TOTAL	15	TOTAL	14
SECOND YEAR	Fall Semester		Spring Semester	
OLOGIAD TEAR	BIO 304 General	4	BIO 349 Genetics and BIO	4
	Ecology and BIO	7	349L Genetics Laboratory	7
	304L Ecology		o rez conocios zaporacory	
	BIO 291W Advanced Writing	3	EEO** Elective	4
	in Biology		220 2.000	
	CHE 310 Organic Chemistry I	4	Cultural Pluralism	3
	and CHE 310L Organic	-	Cultural Fluralisiii	3
	Chemistry I Laboratory			
	Foreign Language 101	3	Foreign Language 102	3
			Elective	3
	TOTAL	14	TOTAL	17
THIRD YEAR	Fall Semester		Spring Semester	
The electives chosen should be from	CMG** elective		Biology Elective	3
the appropriate course groups to fulfill	Bio 458 Evolution	3	Elective 300 level or	3
the requirements for this track.			above	
	PHY 211 General Physics	5	PHY 213 General Physics	5
	with Laboratory I		with Laboratory II	
	Individual & Society II	3	Culture and Creativity	3
	TOTAL	15	TOTAL	15
FOURTH YEAR	Fall Semester		Spring Semester	
The electives chosen should be from	Biology elective		Elective 300 level or above	3
the appropriate course groups to fulfill	Bio 491 Comprehensive Exam	0		3
the requirements for this track. In			above	
addition, you should make sure you	Elective 300 level or above	4		3
have taken enough classes at the 300	Elective		Elective	3
lavial an abavia ta aatlatii thii iiii bii	Chalantaria	3	Biology Elective	3
level or above to satisfy the university	Global Viewpoints		DIDIOGY LIECTIVE	
level or above to satisfy the university requirement of 45 hours.	Global Viewpoints TOTAL	15	TOTAL	3 <b>15</b>
			TOTAL GRAND TOTAL OF CREDITS	15 120

### Notes:

• \*\*Refer to the Biological Sciences Course Groups for lists of courses.

MAJOR: Biology TRACK: B. S. Forensic Science