

Cleveland State University
College of Arts and Sciences
Bachelor of Science in Biology

(recommended plan for students with strong science background)

First Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
ASC 101 Intro to University Life	1		Intro	ENG 102 College Writing II	3		W/C
ENG 101 College Writing I	3		W/C	STA 347, PSY 317^ OR MTH 182	3 or 4	X	M/QL
STA 147, PSY 217^, SOC 354^ OR MTH 181	3 or 4	X	M/QL	BIO 202/203 Introductory Biology II/Lab	4	X	
BIO 200/201 Introductory Biology I/Lab	4	X	NS	CHM 262/267 General Chemistry II/Lab	4	X	
CHM 261/266 General Chemistry I/Lab	4	X	NS				
<i>Semester Total</i>	15 or 16			<i>Semester Total</i>	14 or 15		

Second Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
300 Level BIO Course (from Group A)	4	X		300 Level BIO Course (from Group B)	4	X	
CHM 331/336 Organic Chemistry I/Lab	4	X		Arts & Humanities Elective**	3		A&H
Arts & Humanities Elective**	3		A&H	Social Science Elective**	3		SS
Social Science Elective**	3		SS	General Elective*	3		
				General Elective*	3		
<i>Semester Total</i>	14			<i>Semester Total</i>	16		

Third Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
300 Level BIO Course (from Group B)	4	X		300 Level BIO Course (from Group A)	4	X	
Biology Elective^^	4	X		Biology Elective^^	4	X	
PHY 221 (or PHY 241)	5	X		BIO 390 Writing in Biology (Recommended)	3	X	WAC
Social Diversity (US) Elective	3	X	DIV-US	PHY 222 (or PHY 242)	5	X	
<i>Semester Total</i>	16			<i>Semester Total</i>	16		

Fourth Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
Biology Elective^^	4	X		BIO 499 Exit Evaluation	0	X	
Social Diversity (AA) Elective	3		DIV-AA	BIO 495 Seminar	2	X	CAP/SPAC
General Elective*	3			Writing Across the Curriculum Elective	3		WAC
General Elective*	3			Biology Elective^^	4	X	
General Elective*	1			General Elective*	3		
				General Elective*	3		
Apply for Spring graduation by the middle of this term							
<i>Semester Total</i>	14			<i>Semester Total</i>	15		
Credit Total: 120-122 (minimum 120 required for degree)							

The plan above is a suggested guide to ensure that all General Education, College, University, and Major requirements are met within 4 years of study. Students may deviate from the suggested placement of Gen Ed courses, although the M/QL and W/C requirements should be completed during the first year of study. This plan assumes college-level readiness in both mathematics and English and that Foreign Language Deficiency requirements have been met.

Gen Ed Key:

INTRO = Introduction to University Life Requirement (one course)
W/C = Writing/Composition Requirement (2 courses; C or better required)
M/QL = Mathematics/Quantitative Literacy Requirement (2 courses)
NS = Natural Science (2 courses, one of which must have a lab)

SS = Social Sciences Requirement (2 courses from different departments**)
A&H = Arts & Humanities Requirement (2 courses from different departments**)
DIV = Social Diversity Requirement (one US Diversity & one African American Exp.)
WAC/SPAC = Writing/Speaking Across the Curriculum (3 courses, one in major)
CAP = Capstone Requirement

* General Electives ensure that a student accumulates the minimum 120 required credit hours for graduation. Of these 120 credit hours, a minimum of 36 credit hours must be upper division (300 or 400-level courses).

** Of the SS and A&H courses, one must be focused on Africa, Latin America, Asia, or the Middle East

^Only one QL course can be applied to the M/QL requirement. The other course must be an MTH/STA course.

^^Refer to the Undergraduate Catalog, Degree Audit, or the faculty advisor for information regarding which courses are eligible to be used as biology electives

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Cleveland State University
College of Arts and Sciences
Bachelor of Science in Biology

(recommended plan for students not confident/untested in their scientific abilities)

First Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
ASC 101 Intro to University Life	1		Intro	ENG 102 College Writing II	3		W/C
ENG 101 College Writing I	3		W/C	STA 347, PSY 317^ OR MTH 182	3 or 4	X	M/QL
STA 147, PSY 217^, SOC 354^ OR MTH 181	3 or 4	X	M/QL	BIO 202/203 Introductory Biology II/Lab	4	X	NS
BIO 200/201 Introductory Biology I/Lab	4	X	NS	Arts & Humanities Elective**	3		A&H
Social Science Elective**	3		SS	Social Science Elective**	3		SS
<i>Semester Total</i>	14 or 15			<i>Semester Total</i>	16 or 17		

Second Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
300 Level BIO Course (from Group A)	4	X		300 Level BIO Course (from Group B)	4	X	
CHM 261/266 General Chemistry I/Lab	4	X		CHM 262/267 General Chemistry II/Lab	4	X	
Social Diversity (US) Elective	3		DIV-US	Social Diversity (AA) Elective	3		DIV-AA
Arts & Humanities Elective**	3		A&H	General Elective*	3		
<i>Semester Total</i>	14			<i>Semester Total</i>	14		

Third Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
300 Level BIO Course (from Group B)	4	X		300 Level BIO Course (from Group A)	4	X	
CHM 331/336 Organic Chemistry I/Lab	4	X		Biology Elective^^	4	X	
General Elective* (WAC)	3		WAC	BIO 390 Writing in Biology (Recommended)	3	X	WAC
General Elective*	3			General Elective*	3	X	
General Elective*	3						
<i>Semester Total</i>	17			<i>Semester Total</i>	14		

Fourth Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
PHY 221 (or PHY241)	5	X		PHY 222 (or PHY 242)	5	X	
Biology Elective^^	4	X		BIO 495 Seminar	2	X	CAP/SPAC
Biology Elective^^	4	X		BIO 499 Exit Evaluation	0	X	
General Elective*	3			Biology Elective^^	4	X	
				General Elective*	3		
				General Elective*	3		
Apply for Spring graduation by the middle of this term							
<i>Semester Total</i>	16			<i>Semester Total</i>	17		
Credit Total: 120-122 (minimum 120 required for degree)							

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Gen Ed Key:	
INTRO = Introduction to University Life Requirement (one course)	SS = Social Sciences Requirement (2 courses from different departments**)
W/C = Writing/Composition Requirement (2 courses; C or better required)	A&H = Arts & Humanities Requirement (2 courses from different departments**)
M/QL = Mathematics/Quantitative Literacy Requirement (2 courses)	DIV = Social Diversity Requirement (one US Diversity & one African American Exp.)
NS = Natural Science (2 courses, one of which must have a lab)	WAC/SPAC = Writing/Speaking Across the Curriculum (3 courses, one in major)
	CAP = Capstone Requirement

* General Electives ensure that a student accumulates the minimum 120 required credit hours for graduation. Of these 120 credit hours, a minimum of 36 credit hours must be upper division (300 or 400-level courses).

** Of the SS and A&H courses, one must be focused on Africa, Latin America, Asia, or the Middle East

^Only one QL course can be applied to the M/QL requirement. The other course must be an MTH/STA course.

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Cleveland State University
College of Arts and Sciences
Bachelor of Science in Biology
Medical Laboratory Science

First Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
ASC 101 Intro to University Life	1		Intro	ENG 102 College Writing II	3		W/C
ENG 101 College Writing I	3		W/C	STA 347 OR PSY 317^	3	X	M/QL
STA 147, PSY 217^, OR SOC 354^	3	X	M/QL	BIO 202/203 Introductory Biology II/Lab	4	X	
BIO 200/201 Introductory Biology I/Lab	4	X	NS	CHM 262/267 General Chemistry II/Lab	4	X	
CHM 261/266 General Chemistry I/Lab	4	X	NS				
<i>Semester Total</i>	15			<i>Semester Total</i>	14		

Second Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
BIO 308/309 Cell Biology/Lab	4	X		BIO 306/307 Biochemistry/Recitation	4	X	
CHM 331/336 Organic Chemistry I/Lab	4	X		BIO 310/311 Genetics/Recitation (recommended)	4	X	
Arts & Humanities Elective**	3		A&H	Arts & Humanities Elective**	3		A&H
Social Science Elective**	3		SS	Social Diversity (US) Elective	3		DIV-US
				General Elective*	3		
<i>Semester Total</i>	14			<i>Semester Total</i>	17		

Third Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
BIO 412/413 Elements of Immunology/Lab	4	X		BIO 390 Writing in Biology (Recommended)	3	X	WAC
BIO 416/417 Microbiology/Lab	5	X		BIO 414/415 Parasitology/Lab (Recommended)	4	X	
Social Diversity (AA) Elective	3		DIV-AA	BIO 422 or HSC 422/450 (Recommended)	3-5	X	
General Elective* (WAC)	3		WAC	BIO 495 Seminar	2	X	CAP/SPAC
				Social Science Elective**	3		SS
				BIO 499 Exit Evaluation	0	X	
<i>Semester Total</i>	15			<i>Semester Total</i>	15-17		

Fourth Year = Clinical Year - Taken at school of medical laboratory science

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
Apply for Spring graduation by the middle of this term							
Credit Total: 90-92+33 from clinical year= 123-125 (minimum 120 required for degree)							

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Cleveland State University
College of Arts and Sciences
 Bachelor of Science in Biology
 CSUteach (license in Education)

First Year										
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed	
ASC 101: Intro to University Life	1			Intro	PHY 201: Astronomy: Stars & Galaxies	3	x			NS
ENG 101: College Writing I	3			W/C	ENG 102: College Writing II	3				W/C
BIO 200/201: Introductory Biology I + Lab	4	x		NS	BIO 202/203: Introductory Biology II + Lab	4	x			NS
PSY 221: Adolescent Psychology	3		x	SS	CHM 261/266: General Chemistry I + Lab	4	x			NS
MTH 181: Calculus I	4	x		M/QL	STA 147: Statistical Concepts & App	3	x			M/QL
Semester Total	15				Semester Total	17				

Second Year										
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed	
EUT 201: Step 1: Inquiry Approaches to Teaching	1		x		EDB 242: Introduction to Education	3		x		DIV
BIO 304/305: Population Biology and Evolution + Lab	4	x			BIO 300/301: Plant Biology + Lab	4	x			
CHM 262/267: General Chemistry II + Lab	4	x		NS	CHM 331/336: Organic Chemistry I + Lab	4	x			
BIO 302/303: Animal Biology + Lab	4	x			EVS 206: Intro to Environmental Science	3	x			NS
Arts & Humanities (**ALAAME)	3			A&H	EDC 200: Div in Edu Settings	3		x		DIV
Semester Total	16				Semester Total	17				

Third Year										
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed	
EDB 302: Psychological Foundations of Education	3		x	WAC	EUT 305: Classroom Interactions	3		x		
BIO 310/311: Genetics + Recitation	4	x			BIO 306/307: Biochemistry + Recitation	4	x			
PHY 221: College Physics I	5	x		NS	PHY 222: College Physics II	5	x			NS
GEO 100/101: Intro to Geology + Lab	4	x		NS	BIO 3xx/4xx: Elective	3	x			
African American Experience Elective	3			DIV	ESE 400: Introduction to Special Education	3		x		WAC
Semester Total	19				Semester Total	18				

Fourth Year										
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed	
EUT 417: Project Based Instruction in Science	3		x		EST 499: CSUteach STEM Apprentice Teaching II	6		x		
EST 399: CSUteach STEM Apprentice Teaching I	1		x		EUT 210: Perspectives on Science & Math	3		x		A&H/WAC
EUT 311: Research Methods	3		x	WAC	CHM 255: Principles of Environmental Chemistry	3	x			
BIO 308/309: Cell Biology + Lab	4	x			Social Science (**ALAAME)	3	x			SS
PHY 470: Environmental Physics	3	x			BIO 499: Exit Evaluation	0	x			
EDL 305: Content Area Literacy	3		x							
BIO 495: Seminar	2	x		CAP/WAC						
Apply for Spring graduation by the middle of this term										
Semester Total	19				Semester Total	15				
Degree Total: 136										

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