Cleveland State University College of Sciences and Health Professions

Bachelor of Science in Biology

(recommended plan for students with strong science backgrounds)

- NEW FALL 2014 -

	First Year											
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed					
BIO 200/201 Introductory Biology I/Lab	4	Х	NS	BIO 202/203 Introductory Biology II/Lab	4	Х	NS					
CHM 261/266 General Chemistry I/Lab	4	х	NS	CHM 262/267 General Chemistry II/Lab	4	х	NS					
ENG 101 English I	3		W/C	ENG 102 English II	3		W/C					
MTH 147, PSY 217^, SOC 354^ OR MTH 181	3 or 4	х	M/QL	MTH 347, PSY 317^ OR MTH 182	3 or 4	х	M/QL					
ASC 101 Introduction to University Life	1		INTRO									
Semester Total	15 or 16			Semester Total	14 or 15	·						

			Second	Year			
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
300-level Organismal Course (BIO 300/301; 302/303; 304/305)	4	х		300-level Cell/Molecular Course (BIO 306; 308/309; 310/311)	3 or 4	Х	
CHM 331/336 Organic Chemistry I/Lab	5	х		General Elective*	3		
Arts & Humanities Elective (outside the US/ALAAME)	3		A&H	Social Science Elective (outside the US/ALAAME)	3		SS
Social Science Elective	3		SS	Arts & Humanities Elective	3		A&H
				General Elective*	3		
Semester Total	15			Semester Total	15 or 16		

	Third Year											
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed					
300-level Cell/Molecular Course (BIO 306; 308/309; 310/311)	3 or 4	х		300-level Organismal Course (BIO 300/301; 302/303; 304/305)	4	Х						
Biology Elective**	4	х		Biology Elective**	4	х						
PHY 231 College Physics I - Biomedical Applications	4	х	NS	BIO 390 Writing in Biology (Recommended)	2		WAC					
US Diversity Elective	3		DIV	PHY 232 College Physics II - Biomedical Applications	4	х	NS					
Semester Total	14 or 15			Semester Total	14							

			Fourth	Year						
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed			
Biology Elective**	4	Х		BIO 499 Exit Evaluation	0	Х				
African American Experience Elective	3		DIV	BIO 495 Seminar	1	х	CAP; SPAC			
General Elective*	3			Writing Across the Curriculum Elective	3		WAC			
General Elective*	3			Biology Elective**	4	Х				
General Elective*	3			Biology Elective**	4	х				
				General Elective*	3					
Apply for Spring graduation prior to Sep 9th										
Semester Total	16			Semester Total	15					
Degree Total (as listed in above sample): 118 - 122 (120 hours minimum required to earn degree)										

Assumptions: college-level readiness in MTH & ENG; no Foreign Language Deficiency

College/ Program Notes:

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.

*Electives ensure that a student accumulates the minimum credit hour totals needed for graduation. Students must have aminimum of 120 total credit hours, of which a minimum of 42 credit hours must be upper division (300 or 400-level courses). Depending upon other elective choices made, students may not need as many electives as indicated above, or may need additional electives.

University Notes:

Gen Ed Key:

INTRO = Introduction to University Life (one course)

W/C = Writing/Composition (two courses; C or better required)

M/QL = Mathematics/Quantitative Literacy (two courses)

NS = Natural Sciences (two courses, one of which must have a lab)

 $SS = Social Sciences (two courses, one of which must be focused outside the <math>US^{**}$)

A&H = Arts & Humanities (two courses, one must be focused outside the US**)

DIV = Social Diversity (two courses; one US Diversity and one African American Experience)

 ${\sf WAC/SPAC = Writing/Speaking\ Across\ the\ Curriculum\ (three\ courses,\ one\ in\ the\ major;\ C\ or\ better\ required)}$

CAP = Capstone

** of the SS and A&H courses focused outside the US, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)

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

 $^{^{\}wedge}$ Only one QL course can be applied to the M/QL requirement. The other course must be an MTH course.

Cleveland State University College of Sciences and Health Professions

Bachelor of Science in Biology

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

- NEW FALL 2014 -

First Year											
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed				
BIO 200/201 Introductory Biology I/Lab	4	Х	NS	BIO 202/203 Introductory Biology II/Lab	4	Х	NS				
ENG 101 English I	3		W/C	ENG 102 English II	3		W/C				
MTH 147, PSY 217^, SOC 354^ OR MTH 181	3 or 4	Х	M/QL	MTH 347, PSY 317^ OR MTH 182	3 or 4	Х	M/QL				
ASC 101 Introduction to University Life	1		INTRO	Arts & Humanities Elective	3		A&H				
Social Science Elective	3		SS	Social Science Elective (outside the US/ALAAME)	3		SS				
Semester Total	14 or 15			Semester Total	16 or 17						

	Second Year											
Fall Semester Credits Major Gen Ed Spring Semester Credits Major Gen Ed												
300-level Organismal Course (BIO 300/301; 302/303; 304/305)	4	х		300-level Cell/Molecular Course (вю 306; 308/309; 310/311)	3 or 4	х						
CHM 261/266 General Chemistry I/Lab	4	Х	NS	General Elective*	3							
US Diversity Elective	3		DIV	CHM 262/267 General Chemistry II/Lab	4	х	NS					
Arts & Humanities Elective (outside the US/ALAAME)	3		A&H	African American Experience Elective	3		DIV					
Semester Total	14			Semester Total	13 or 14							

	Third Year											
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed					
300-level Cell/Molecular Course (BIO 306; 308/309; 310/311)	3 or 4	х		300-level Organismal Course (BIO 300/301; 302/303; 304/305)	4	Х						
CHM 331/336 Organic Chemistry I/Lab	5	х		Biology Elective**	4	Х						
Writing Across the Curriculum Elective	3		WAC	BIO 390 Writing in Biology (Recommended)	2		WAC					
General Elective*	3			General Elective*	3							
				General Elective*	3							
Semester Total	14 or 15			Semester Total	16							

			Fourth	Year						
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed			
Biology Elective**	4	Х		BIO 499 Exit Evaluation	0	Х				
PHY 231 College Physics I	4	х	NS	Biology Elective**	4	х				
General Elective*	3			Biology Elective**	4	Х				
Biology Elective**	4	х		PHY 232 College Physics II	4	х	NS			
				General Elective*	3					
				BIO 495 Seminar	1	Х	CAP; SPAC			
Apply for Spring graduation prior to Sep 9th										
Semester Total	15			Semester Total	16					
Degree Total (as listed in above sample): 118 - 122 (120 hours minimum required to earn degree)										

Assumptions: college-level readiness in MTH & ENG; no Foreign Language Deficiency

College/ Program Notes

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.

*Electives ensure that a student accumulates the minimum credit hour totals needed for graduation. Students must have aminimum of 120 total credit hours, of which a minimum of 42 credit hours must be upper division (300 or 400-level courses). Depending upon other elective choices made, students may not need as many electives as indicated above, or may need additional electives.

- ** Refer to the Undergraduate Catalog, Grad Express Degree Audit, or the faculty advisor for information regarding which courses are eligible to be used as biology electives.
- ^Only one QL course can be applied to the M/QL requirement. The other course must be an MTH course.

University Notes:

SS = Social Sciences (two courses, one of which must be focused outside the US**)

INTRO = Introduction to University Life (one course)

A&H = Arts & Humanities (two courses, one must be focused outside the US**)

W/C = Writing/Composition (two courses; C or better required)

M/QL = Mathematics/Quantitative Literacy (two courses)

WAC/SPAC = Writing/Speaking Across the Curriculum (three courses, one in the major; C or better required)

NS = Natural Sciences (two courses, one of which must have a lab)

CAP = Capstone

** of the SS and A&H courses focused outside the US, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)

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Cleveland State University College of Sciences and Health Professions

Bachelor of Science in Biology CSUteach (minor in Education)

				First	/ear	
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester Credits Major Minor Ger	n Ed
ASC 101: Intro to University Life	1			Intro	EUT 201: Step 1: Inquiry Approaches to Teaching 1 x	
ENG 101: College Writing I	3			W/C	ENG 102: College Writing II 3 W	V/C
BIO 200/201: Introductory Biology I + Lab	4	х	х	NS	BIO 202/203: Introductory Biology II + L 4 x x N	NS
PSY 221: Adolescent Psychology	3		х	SS	CHM 261/266: General Chemistry I + La 4 x x N	NS
MTH 181: Calculus I	4	Х	х	M/QL	MTH 147: Statistical Concepts & App 3 x x M/	/QL
					PHY 201: Astronomy: Stars & Galaxies 3 x x N	NS
Semester Total	15				Semester Total 18	

				Secon	d Year				
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed
EUT 217: Step 2: Inquiry-Based Lesson Design in Science	1		х		EDC 300: Div in Edu Settings	3		х	DIV
BIO 300/301: Plant Biology + Lab	4	х			BIO 304/305: Pop Biology & Evolution +	4	х	х	
CHM 262/267: General Chemistry II + La	4	Х	х	NS	CHM 331/336: Organic Chemistry I + La	5	Х		
EVS 206/207: Intro to Env. Science + Lab	4	х	х	NS	BIO 308/309: Cell Biology + Lab	4	Х		
Arts & Humanities Elective (outside US**)	3			A&H					
Semester Total	16				Semester Total	16			

	Third Year													
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed					
EUT 302: Knowing & Learning	3		х		EUT 305: Classroom Interactions	3		х						
BIO 302/304: Animal Biology + Lab	4	х			BIO 306: Biochemistry	3	х							
PHY 221: College Physics I	5	х	х	NS	PHY 222: College Physics II	5	Х	х	NS					
GEO 100/101: Intro to Geology + Lab	4	х	х		Social Science Elective (outside US**)	3			SS					
					African American Experience Elective	3			DIV					
Semester Total	16				Semester Total	17								

				Fourt	h Year						
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed		
EUT 317: Project Based Instruction in Sc	i 3		х		EST 499: CSUteach STEM Apprentice Tea	6		Х			
EST 399: CSUteach STEM Apprentice Teach	1		х		EUT 210: Perspectives on Science & M	3		х	A&H/WAC		
SCI 311: Research Methods	3		х	WAC	CHM 255: Principles of Environmental Cher	3	х	Х			
BIO 310/311: Genetics + Recitation	4	х			BIO 495: Seminar	1	х		CAP/WAC		
PHY 470: Environmental Physics	3	Х	х		BIO 499: Exit Evaluation	0	Х				
EDL 305: Content Area Literacy	3		х		BIO 3xx/4xx: Elective	3	Х				
Apply for Spring graduation prior to Se	ep 9th										
Semester Total	17				Semester Total	16					
Degree Total: 131											

Assumptions: college-level readiness in MTH & ENG; no Foreign Language Deficiency

College/ Program Notes:

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University Notes:

Gen Ed Key:

INTRO = Introduction to University Life (one course)

W/C = Writing/Composition (two courses; C or better required)

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