# **BIOLOGY (BA) - SECONDARY EDUCATION TRACK**

#### **Program Map**

### Suggested four year course schedule with MATH 0999C or MATH 0999B

Course	Title	Credit Hours
First Year Fall		
Institutional Priorities	ITDS 1779 (2), LEAD 1705 (2), PERS 1506 (1; may be repeated with different topic), PERS 1507 (2)	1
Arts, Humanities, and Ethics	Fine Arts	3
Social Studies	World Culture	3
BIOL 1715	Professionalism and Careers in Biology (recommended Area F Guided Elective; minimum grade of C)	1
ENGL 1101	English Composition I (minimum grade of C)	3
MATH 1111	College Algebra (minimum grade of C) 1	3
MATH 0999B or	Support for College Algebra B <sup>2</sup> or Support for College Algebra C	
MATH 0999		
O	Credit Hours	14
Spring BIOL 1107K	Principles of Biology I (minimum grade of C)	4
CHEM 1211 & 1211L	Principles of Chemistry I and Principles of Chemistry I Lab (minimum grade of C)	4
ENGL 1102	English Composition II (minimum grade of C)	3
MATH 1113	Pre-Calculus (minimum grade of C) <sup>3</sup>	4
	Credit Hours	15
Second Year Fall		
BIOL 1108K	Principles of Biology II (minimum grade of C)	4
CHEM 1212 & 1212L	Principles of Chemistry II and Principles of Chemistry II Lab (minimum grade of C)	4
ITDS 2125	Historical Perspectives on the Philosophy of Science and Mathematics (minimum grade of C) (Arts, Humanities, and Ethics area) <sup>4</sup>	3
Institutional Priorities	COMM 1110 Public Speaking or foreign language 1001, 1002, 2001, 2002. (Recommend FL 1001 for BA Biology Sec Ed majors)	3
KINS 1106 or PHED 1205	Lifetime Wellness or Concepts of Fitness	2

LITOLI 1001	Charle la la aviene Amarasa has has Tarabin a	
UTCH 1201	Step I: Inquiry Approaches to Teaching (minimum grade of C)	1
	Credit Hours	17
Spring	oreal rious	• • •
BIOL 2206K	Organismic Biology I (minimum grade of C)	4
BIOL 2207K	Organismic Biology II (minimum grade of C)	4
Program	Foreign Language 1002 (minimum grade of	3
Requirements	C)	
STAT 1401	Elementary Statistics (minimum grade of C)	3
UTCH 1202	Step II: Inquiry-Based Lesson Design (minimum grade of C)	1
Health and Wellness	PEDS Activity	1
	Credit Hours	16
Third Year Fall		
BIOL 3215K	Cell Biology (minimum grade of C)	4
BIOL 3216K	Genetics (minimum grade of C)	4
Program Requirement	Foreign Language 2001 (minimum grade of C)	3
UTCH 2105	Knowing and Learning in Mathematics and Science (minimum grade of C)	3
UTCH 3215	Research Methods (minimum grade of C)	3
	Credit Hours	17
Spring		
Social Sciences	Behavioral Science	3
BIOL 3217K	Ecology (minimum grade of C)	4
Program Electives	BIOL Cell/Molecular Senior Elective (minimum grade of C)	4
Arts, Humanities, and Ethics	Humanities <sup>4</sup>	3
UTCH 3205	Classroom Interactions (minimum grade of C)	3
	Credit Hours	17
Fourth Year		
Fall		
BIOL 4795	Capstone Senior Seminar (minimum grade of C)	2
Program Electives	BIOL Ecology/Evolution Senior Elective (minimum grade of C)	4
HIST 2111 or HIST 2112	U. S. History to 1865 or U. S. History since 1865	3
POLS 1101	American Government	3
UTCH 4205	Inquiry-Based Instruction (minimum grade of C)	3
Spring	Credit Hours	15
SPED 4115	Teaching Math and Science to Exceptional Learners (minimum grade of B; see note below)	2
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There is a recent rule change for certification from the GaPSC. As of July 1, 2019, students must make a B or higher in the Exceptional Children's course. The course could be any of the following depending on your major. SPED 2256, EDCI 6228, KINS 4245, SPED 4115, PHED 6219 This rule change will not affect your graduation but you cannot become a certified educator with the state of Georgia until you receive the grade of B or higher in this course.

UTCH 4485 Student Teaching UTCH 4795 Student Teaching Seminar (minimum grade of C) Credit Hours 1:		Total Credit Hours	123
UTCH 4795 Student Teaching Seminar (minimum grade		Credit Hours	12
UTCH 4485 Student Teaching	UTCH 4795	3 \	1
	UTCH 4485	Student Teaching	9

- <sup>1</sup> MATH 1111 College Algebra has 3 credits that will count in Program Requirements.
- MATH 0999B (2 credits) or MATH 0999C (1 credit) do not count toward the degree. These courses are support courses, if needed, for MATH 1111 College Algebra.
- MATH 1113 Pre-Calculus has 4 credits. Count 3 credits in Mathematics and Quantitative Skills and 1 credit in Field of Study.
- ITDS 2125 Historical Perspectives on the Philosophy of Science and Mathematics is recommended in Arts, Humanities, and Ethics. It can be taken for Program Requirements.

#### Suggested four year course schedule with MATH 1111 College Algebra.

Course	Title	Credit Hours
First Year		
Fall		
Institutional Priorities	ITDS 1779 (2), LEAD 1705 (2), PERS 1506 (1; may be repeated with different topic), PERS 1507 (2)	1
Arts, Humanities, and Ethics	Fine Arts	3
BIOL 1107K	Principles of Biology I (minimum grade of C)	4
BIOL 1715	Professionalism and Careers in Biology (recommended Area F Guided Elective; minimum grade of C)	1
ENGL 1101	English Composition I (minimum grade of C)	3
MATH 1111	College Algebra (minimum grade of C) 1	3
	Credit Hours	15
Spring		
BIOL 1108K	Principles of Biology II (minimum grade of C)	4
CHEM 1211 & 1211L	Principles of Chemistry I and Principles of Chemistry I Lab (minimum grade of C)	4
ENGL 1102	English Composition II (minimum grade of C)	3
MATH 1113	Pre-Calculus (minimum grade of C) <sup>2</sup>	4
	Credit Hours	15

Fall		
BIOL 2206K	Organismic Biology I (minimum grade of C)	4
CHEM 1212	Principles of Chemistry II	4
& 1212L	and Principles of Chemistry II Lab	
Institutional	(minimum grade of C)	3
Priorities	COMM 1110 Public Speaking or foreign language 1001, 1002, 2001, 2002.	3
	(Recommend FL 1001 for BA Biology Sec	
	Ed majors)	
ITDS 2125	Historical Perspectives on the Philosophy	3
	of Science and Mathematics (minimum grade of C) <sup>3</sup>	
KINS 1106	Lifetime Wellness	2
or PHED 1205	or Concepts of Fitness	
UTCH 1201	Step I: Inquiry Approaches to Teaching (minimum grade of C)	1
	Credit Hours	17
Spring		
BIOL 2207K	Organismic Biology II (minimum grade of C)	4
BIOL 3216K	Genetics (minimum grade of C)	4
Program	Foreign Language 1002 (minimum grade of	3
Requirements Health and	C)	1
Wellness	PEDS Activity	
STAT 1401	Elementary Statistics (minimum grade of C)	3
UTCH 1202	Step II: Inquiry-Based Lesson Design	1
	(minimum grade of C)	
	(minimum grade of C)  Credit Hours	16
Third Year		16
Third Year Fall		16
Fall BIOL 3215K	Credit Hours  Cell Biology (minimum grade of C)	16
Fall	Credit Hours  Cell Biology (minimum grade of C)	
Fall BIOL 3215K Arts, Humanities,	Credit Hours  Cell Biology (minimum grade of C)	4
Fall BIOL 3215K Arts, Humanities, and Ethics Program	Credit Hours  Cell Biology (minimum grade of C)  Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C)  Knowing and Learning in Mathematics and	4
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements	Credit Hours  Cell Biology (minimum grade of C)  Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C)	4 3
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105	Credit Hours  Cell Biology (minimum grade of C)  Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C)  Knowing and Learning in Mathematics and Science (minimum grade of C)	3 3
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105	Credit Hours  Cell Biology (minimum grade of C)  Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C)  Knowing and Learning in Mathematics and Science (minimum grade of C)  Research Methods (minimum grade of C)	4 3 3 3
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105 UTCH 3215 Spring Social Sciences	Credit Hours  Cell Biology (minimum grade of C)  Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C)  Knowing and Learning in Mathematics and Science (minimum grade of C)  Research Methods (minimum grade of C)	4 3 3 3
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105 UTCH 3215  Spring Social Sciences Social Sciences	Credit Hours  Cell Biology (minimum grade of C) Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and Science (minimum grade of C) Research Methods (minimum grade of C)  Credit Hours  Behavioral Science World Cultures	4 3 3 3 16
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105 UTCH 3215  Spring Social Sciences Social Sciences Program	Credit Hours  Cell Biology (minimum grade of C)  Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C)  Knowing and Learning in Mathematics and Science (minimum grade of C)  Research Methods (minimum grade of C)  Credit Hours  Behavioral Science  World Cultures  BIOL Cell/Molecular Senior Elective	4 3 3 3 16
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105 UTCH 3215  Spring Social Sciences Social Sciences Program Electives	Credit Hours  Cell Biology (minimum grade of C) Humanities 3  Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and Science (minimum grade of C) Research Methods (minimum grade of C)  Credit Hours  Behavioral Science World Cultures BIOL Cell/Molecular Senior Elective (minimum grade of C)	4 3 3 3 16 3 4
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105  UTCH 3215  Spring Social Sciences Social Sciences Program Electives BIOL 3217K	Credit Hours  Cell Biology (minimum grade of C) Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and Science (minimum grade of C) Research Methods (minimum grade of C)  Credit Hours  Behavioral Science World Cultures BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology	4 3 3 3 16 3 4
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105 UTCH 3215  Spring Social Sciences Social Sciences Program Electives	Credit Hours  Cell Biology (minimum grade of C) Humanities 3  Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and Science (minimum grade of C) Research Methods (minimum grade of C)  Credit Hours  Behavioral Science World Cultures BIOL Cell/Molecular Senior Elective (minimum grade of C)	4 3 3 3 16 3 4
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105  UTCH 3215  Spring Social Sciences Social Sciences Program Electives BIOL 3217K	Credit Hours  Cell Biology (minimum grade of C) Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and Science (minimum grade of C) Research Methods (minimum grade of C)  Credit Hours  Behavioral Science World Cultures BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology Classroom Interactions (minimum grade of	4 3 3 3 16 3 4
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105  UTCH 3215  Spring Social Sciences Social Sciences Program Electives BIOL 3217K	Credit Hours  Cell Biology (minimum grade of C) Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and Science (minimum grade of C) Research Methods (minimum grade of C)  Credit Hours  Behavioral Science World Cultures BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology Classroom Interactions (minimum grade of C)	4 3 3 3 16 3 4 4 3
Fall BIOL 3215K Arts, Humanities, and Ethics Program Requirements UTCH 2105 UTCH 3215  Spring Social Sciences Social Sciences Program Electives BIOL 3217K UTCH 3205	Credit Hours  Cell Biology (minimum grade of C) Humanities <sup>3</sup> Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and Science (minimum grade of C) Research Methods (minimum grade of C)  Credit Hours  Behavioral Science World Cultures BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology Classroom Interactions (minimum grade of C)	4 3 3 3 16 3 4 4 3

**Second Year** 

	Total Credit Hours	123
	Credit Hours	12
UTCH 4795	Student Teaching Seminar (minimum grade of C)	1
UTCH 4485	Student Teaching	9
GaPSC. As of higher in the E could be any of SPED 2256, El This rule chan cannot becom	ent rule change for certification from the July 1, 2019, students must make a B or Exceptional Children's course. The course of the following depending on your major. DCI 6228, KINS 4245, SPED 4115, PHED 6219 age will not affect your graduation but you he a certified educator with the state of you receive the grade of B or higher in this	
Spring SPED 4115	Teaching Math and Science to Exceptional Learners (minimum grade of B; see note below)	2
Chrina	Credit Hours	15
UTCH 4205	Inquiry-Based Instruction (minimum grade of C)	3
POLS 1101	American Government	3
HIST 2111 or HIST 2112	U. S. History to 1865 or U. S. History since 1865	3
Program Electives	BIOL Ecology/Evolution Senior Elective (minimum grade of C)	4

<sup>&</sup>lt;sup>1</sup> MATH 1111 College Algebra has 3 credits that will count in General Electives.

MATH 1113 Pre-Calculus has 4 credits. Count 3 credits in Mathematics and Quantitative Skills and 1 credit in Field of Study.

## Suggested four year course schedule with MATH 1113 Pre-Calculus or higher.

Course	Title	Credit Hours
First Year Fall		
Institutional Priorities	ITDS 1779 (2), LEAD 1705 (2), PERS 1506 (1; may be repeated with different topic), PERS 1507 (2)	1
Arts, Humanities, and Ethics	Fine Arts	3
BIOL 1107K	Principles of Biology I (minimum grade of C)	4
BIOL 1715	Professionalism and Careers in Biology (recommended Area F Guided Elective; minimum grade of C)	1
CHEM 1211 & 1211L	Principles of Chemistry I and Principles of Chemistry I Lab (minimum grade of C)	4

ENGL 1101	English Composition I (minimum grade of C)	3
	Credit Hours	16
Spring		
BIOL 1108K	Principles of Biology II (minimum grade of C)	4
CHEM 1212 & 1212L	Principles of Chemistry II and Principles of Chemistry II Lab (minimum grade of C)	4
ENGL 1102	English Composition II (minimum grade of C)	3
MATH 1113	Pre-Calculus (minimum grade of C) <sup>1</sup>	4
Second Year	Credit Hours	15
Fall		
BIOL 2206K	Organismic Biology I (minimum grade of C)	4
Institutional Priorities	COMM 1110 Public Speaking or foreign language 1001, 1002, 2001, 2002. (Recommend FL 1001 for BA Biology Sec Ed majors)	3
ITDS 2125	Historical Perspectives on the Philosophy	3
	of Science and Mathematics (minimum grade of C) (a Humanities course from the list under Arts, Humanities, and Ethics) <sup>2</sup>	
KINS 1106	Lifetime Wellness	2
or PHED 1205	or Concepts of Fitness	
STAT 1401	Elementary Statistics (minimum grade of C)	3
UTCH 1201	Step I: Inquiry Approaches to Teaching (minimum grade of C)	1
UTCH 1201		16
UTCH 1201 Spring	(minimum grade of C)	
	(minimum grade of C)	
Spring BIOL 2207K BIOL 3216K	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)	16
Spring BIOL 2207K	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)	16
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)	16 4 4
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)  Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of	16 4 4 3
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)  Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C)	16 4 4 3
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)  Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C)	16 4 4 3
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)  Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C)  PEDS Activity  Step II: Inquiry-Based Lesson Design	16 4 4 3 3
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)  Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C)  PEDS Activity  Step II: Inquiry-Based Lesson Design (minimum grade of C)	16 4 4 3 3
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness UTCH 1202	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)  Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C)  PEDS Activity  Step II: Inquiry-Based Lesson Design (minimum grade of C)	16 4 4 3 3
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness UTCH 1202  Third Year	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C)  Genetics (minimum grade of C)  Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C)  PEDS Activity  Step II: Inquiry-Based Lesson Design (minimum grade of C)	16 4 4 3 3
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness UTCH 1202  Third Year Fall	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C) Genetics (minimum grade of C) Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C) PEDS Activity  Step II: Inquiry-Based Lesson Design (minimum grade of C)  Credit Hours  Elective	16 4 4 3 3 1
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness UTCH 1202  Third Year Fall AREA I	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C) Genetics (minimum grade of C) Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C) PEDS Activity  Step II: Inquiry-Based Lesson Design (minimum grade of C)  Credit Hours  Elective Cell Biology (minimum grade of C) Foreign Language 2001 (minimum grade of	16 4 4 3 3 1 1 16
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness UTCH 1202  Third Year Fall AREA I BIOL 3215K	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C) Genetics (minimum grade of C) Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C) PEDS Activity  Step II: Inquiry-Based Lesson Design (minimum grade of C)  Credit Hours  Elective Cell Biology (minimum grade of C)	16 4 4 3 3 1 1 16
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness UTCH 1202  Third Year Fall AREA I BIOL 3215K AREA G	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C) Genetics (minimum grade of C) Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C) PEDS Activity  Step II: Inquiry-Based Lesson Design (minimum grade of C)  Credit Hours  Elective Cell Biology (minimum grade of C) Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and Science (minimum grade of C)	16 4 4 3 3 1 1 16 3 4 3
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness UTCH 1202  Third Year Fall AREA I BIOL 3215K AREA G  UTCH 2105	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C) Genetics (minimum grade of C) Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C) PEDS Activity  Step II: Inquiry-Based Lesson Design (minimum grade of C)  Credit Hours  Elective Cell Biology (minimum grade of C) Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and	16 4 4 3 3 1 1 16 3 4 3 3
Spring BIOL 2207K BIOL 3216K Arts, Humanities, and Ethics Program Requirements Health and Wellness UTCH 1202  Third Year Fall AREA I BIOL 3215K AREA G  UTCH 2105	(minimum grade of C)  Credit Hours  Organismic Biology II (minimum grade of C) Genetics (minimum grade of C) Humanities <sup>2</sup> Foreign Language 1002 (minimum grade of C) PEDS Activity  Step II: Inquiry-Based Lesson Design (minimum grade of C)  Credit Hours  Elective Cell Biology (minimum grade of C) Foreign Language 2001 (minimum grade of C) Knowing and Learning in Mathematics and Science (minimum grade of C) Research Methods (minimum grade of C)	16 4 4 3 3 1 1 16 3 4 3 3 3

<sup>3</sup> ITDS 2125 Historical Perspectives on the Philosophy of Science and Mathematics is recommended as a Humanities class in the area of Arts, Humanities, and Ethics. If not taken for Arts, Humanities and Ethics, it can be taken for Program Requirements.

#### Biology (BA) - Secondary Education Track

UTCH 4795	Student Teaching Seminar (minimum grade of C)	1
GaPSC. As of a higher in the E could be any of SPED 2256, EL This rule chan cannot become Georgia until y course.  UTCH 4485	July 1, 2019, students must make a B or xceptional Children's course. The course of the following depending on your major: DCI 6228, KINS 4245, SPED 4115, PHED 6219 ge will not affect your graduation but you e a certified educator with the state of you receive the grade of B or higher in this Student Teaching	9
SPED 4115	Teaching Math and Science to Exceptional Learners (minimum grade of B; see note below) ent rule change for certification from the	2
Spring	Credit Hours	15
UTCH 4205	Inquiry-Based Instruction (minimum grade of C)	3
POLS 1101	American Government	3
HIST 2111 or HIST 2112	U. S. History to 1865 or U. S. History since 1865	3
Program Electives	BIOL Ecology/Evolution Senior Elective (minimum grade of C)	4
Fourth Year Fall BIOL 4795	Capstone Senior Seminar (minimum grade of C)	2
	Credit Hours	17
UTCH 3205	Classroom Interactions (minimum grade of C)	3
BIOL 3217K	Ecology	4
Program Electives	BIOL Cell/Molecular Senior Elective (minimum grade of C)	4

MATH 1113 Pre-Calculus has 4 credits. Count 3 credits in Mathematics and Quantitative Skills and 1 credit in Field of Study.

<sup>2</sup> ITDS 2125 Historical Perspectives on the Philosophy of Science and Mathematics is recommended as a Humanities class in the area Arts, Humanities and Ethics. If not taken for Arts, Humanities and Ethics, it can be taken for Program Requirements.