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

### **Program Map**

# Suggested four year course schedule with MATH 0999 or lower

or lower		
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 General Elective)	1
ENGL 1101	English Composition I (minimum grade of C)	3
MATH 1111	College Algebra (minimum grade of C) $^1$	3
MATH 0999B or MATH 0999	Support for College Algebra B <sup>2</sup> or Support for College Algebra C C	
	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) $^3$	4
Second Year	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
Institutional Priorities	COMM 1110 Public Speaking or foreign language 1001, 1002, 2001, 2002	3
Arts, Humanities and Ethics	Humanities. Recommended course:	3
ITDS 2125	Historical Perspectives on the Philosophy of Science and Mathematics <sup>4</sup>	
KINS 1106 or PHED 1205	Lifetime Wellness or Concepts of Fitness	2
UTCH 1201	Step I: Inquiry Approaches to Teaching (minimum grade of C)	1
	Credit Hours	17

Spring		
BIOL 2206K	Organismic Biology I (minimum grade of C)	4
BIOL 2207K	Organismic Biology II (minimum grade of C)	4
General Electives	Elective	3
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
General Electives	Elective	2
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	16
Spring		
Social Studies	Behavioral Science	3
BIOL 3217K	Ecology (minimum grade of C)	4
Program	BIOL Cell/Molecular Senior Elective	4
Electives	(minimum grade of C)	
Program Electives	Organismal Elective (minimum grade of C)	4
UTCH 3205	Classroom Interactions (minimum grade of C)	3
	Credit Hours	18
Fourth Year		
Fall		
BIOL 4795	Capstone Senior Seminar (minimum grade of C)	2
Program	BIOL Ecology/Evolution Senior Elective	4
Electives	(minimum grade of C)	
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
	Credit Hours	15
	oreat nouis	15
Spring		
Spring SPED 4115	Teaching Math and Science to Exceptional Learners (minimum grade of B; see note below)	2

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

<sup>1</sup> MATH 1111 College Algebra has 3 credits and counts in Program Requirements.

 <sup>2</sup> MATH 0999B (2 credits) or MATH 0999C (1 credits), if required with MATH 1111, do not count toward the degree. These are College Algebra support classes that improve your chances of passing MATH 1111 College Algebra.

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

<sup>4</sup> ITDS 2125 Historical Perspectives on the Philosophy of Science and Mathematics is recommended in Arts, Humanities and Ethics.

### 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 General Elective)	1
ENGL 1101	English Composition I (minimum grade of C)	3
MATH 1111	College Algebra (minimum grade of C) $^{ m 1}$	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) $^2$	4
Second Year Fall	Credit Hours	15
BIOL 2206K	Organismic Biology I (minimum grade of C)	4
CHEM 1212 & 1212L	Principles of Chemistry II and Principles of Chemistry II Lab (minimum grade of C)	4
Social Studies	Behavioral Science	3
Arts, Humanities and Ethics	Humanities. Recommended course:	3

ITDS 2125	Historical Perspectives on the Philosophy of Science and Mathematics (minimum grade of C) <sup>3</sup>	
KINS 1106 or PHED 1205	Lifetime Wellness or Concepts of Fitness	2
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
General Electives		3
Health and Wellness	PEDS Activity	1
STAT 1401	Elementary Statistics (minimum grade of C)	3
UTCH 1202	Step II: Inquiry-Based Lesson Design (minimum grade of C)	1
	Credit Hours	16
Third Year Fall		
BIOL 3215K	Cell Biology (minimum grade of C)	4
Institutional	COMM 1110 Public Speaking or foreign	3
Priorities	language 1001, 1002, 2001, 2002	
General Electives		2
UTCH 2105	Knowing and Learning in Mathematics and Science (minimum grade of C)	3
UTCH 3215	Research Methods (minimum grade of C)	3
Spring	Credit Hours	15
<b>Spring</b> Social Studies	Credit Hours World Culture	<b>15</b> 3
Social Studies Program	World Culture	3
Social Studies Program Electives Program	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective	3
Social Studies Program Electives Program Electives	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C)	3 4 4
Social Studies Program Electives Program Electives BIOL 3217K	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of	3 4 4 4
Social Studies Program Electives Program Electives BIOL 3217K	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of C)	3 4 4 4 3
Social Studies Program Electives Program Electives BIOL 3217K UTCH 3205 Fourth Year	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of C)	3 4 4 4 3
Social Studies Program Electives Program Electives BIOL 3217K UTCH 3205 Fourth Year Fall	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of C) <b>Credit Hours</b> Capstone Senior Seminar (minimum grade of C) BIOL Ecology/Evolution Senior Elective	3 4 4 3 18
Social Studies Program Electives Program Electives BIOL 3217K UTCH 3205 UTCH 3205 Fourth Year Fall BIOL 4795 Program	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of C) Credit Hours Capstone Senior Seminar (minimum grade of C) BIOL Ecology/Evolution Senior Elective (minimum grade of C) U. S. History to 1865	3 4 4 3 18 2
Social Studies Program Electives Program Electives BIOL 3217K UTCH 3205 UTCH 3205 Fourth Year Fall BIOL 4795 Program Electives HIST 2111	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of C) Credit Hours Capstone Senior Seminar (minimum grade of C) BIOL Ecology/Evolution Senior Elective (minimum grade of C)	3 4 4 3 18 2 4
Social Studies Program Electives Program Electives BIOL 3217K UTCH 3205 <b>Fourth Year</b> Fall BIOL 4795 Program Electives HIST 2111 or HIST 2112	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of C) Credit Hours Credit Hours Senior Seminar (minimum grade of C) BIOL Ecology/Evolution Senior Elective (minimum grade of C) U. S. History to 1865 or U. S. History since 1865	3 4 4 3 18 2 4 3
Social Studies Program Electives Program Electives BIOL 3217K UTCH 3205 <b>Fourth Year</b> Fall BIOL 4795 Program Electives HIST 2111 or HIST 2112 POLS 1101	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of C) <b>Credit Hours</b> Capstone Senior Seminar (minimum grade of C) BIOL Ecology/Evolution Senior Elective (minimum grade of C) U. S. History to 1865 or U. S. History since 1865 American Government Inquiry-Based Instruction (minimum grade	3 4 4 3 18 2 4 3 3
Social Studies Program Electives Program Electives BIOL 3217K UTCH 3205 <b>Fourth Year</b> Fall BIOL 4795 Program Electives HIST 2111 or HIST 2112 POLS 1101	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of C) Credit Hours Capstone Senior Seminar (minimum grade of C) BIOL Ecology/Evolution Senior Elective (minimum grade of C) U. S. History to 1865 or U. S. History since 1865 American Government Inquiry-Based Instruction (minimum grade of C)	3 4 4 3 18 2 4 3 3 3 3
Social Studies Program Electives Program Electives BIOL 3217K UTCH 3205 Fourth Year Fall BIOL 4795 Program Electives HIST 2111 or HIST 2112 POLS 1101 UTCH 4205	World Culture Organismal Elective (minimum grade of C) BIOL Cell/Molecular Senior Elective (minimum grade of C) Ecology (minimum grade of C) Classroom Interactions (minimum grade of C) Credit Hours Capstone Senior Seminar (minimum grade of C) BIOL Ecology/Evolution Senior Elective (minimum grade of C) U. S. History to 1865 or U. S. History since 1865 American Government Inquiry-Based Instruction (minimum grade of C)	3 4 4 4 3 18 2 4 3 3 3 3

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

<sup>1</sup> MATH 1111 College Algebra has 3 credits and counts in Program Requirements.

- <sup>2</sup> MATH 1113 Pre-Calculus has 4 credits. Count 3 credits in Mathematics and Quantitative Skills and 1 credit in Field of Study.
- 3 ITDS 2125 Historical Perspectives on the Philosophy of Science and Mathematics is recommended in Arts, Humanities and Ethics.

#### 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 General Elective)	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
Spring	Credit Hours	16
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 Fall	Credit Hours	15
BIOL 2206K	Organismic Biology I (minimum grade of C)	4

General Electives	Elective	3
Arts, Humanities and Ethics	Humanities. Recommended course:	3
ITDS 2125	Historical Perspectives on the Philosophy of Science and Mathematics (minimum grade of C) <sup>2</sup>	
KINS 1106 or PHED 1206	Lifetime Wellness or Concepts of Fitness for Online Students	2
STAT 1401	Elementary Statistics (minimum grade of C)	3
UTCH 1201	Step I: Inquiry Approaches to Teaching (minimum grade of C)	1
	Credit Hours	16
Spring		
BIOL 2207K	Organismic Biology II (minimum grade of C)	4
BIOL 3216K	Genetics (minimum grade of C)	4
Institutional Priorities	COMM 1110 Public Speaking or foreign language 1001, 1002, 2001, 2002	3
Social Studies	Behavioral Science	3
Health and Wellness	PEDS Activity	1
UTCH 1202	Step II: Inquiry-Based Lesson Design (minimum grade of C)	1
	Credit Hours	16
Third Year Fall		
General Electives	Elective	2
BIOL 3215K	Cell Biology (minimum grade of C)	4
Program Requirements	Elective (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	15
Spring		
Program Electives	Organismal Elective (minimum grade of C)	4
Social Studies	World Culture	3
BIOL 3217K	Ecology (minimum grade of C)	4
Program Electives	BIOL Cell/Molecular Senior Elective (minimum grade of C)	4
UTCH 3205	Classroom Interactions (minimum grade of C)	3
	Credit Hours	18
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	3
	or U. S. History since 1865	
POLS 1101	or U. S. History since 1865 American Government	

UTCH 4205	Inquiry-Based Instruction (minimum grade of C)	3
	Credit Hours	15
Spring		
SPED 4115	Teaching Math and Science to Exceptional Learners (minimum grade of B; see note below)	2
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UTCH 4485	Student Teaching	9
UTCH 4795	Student Teaching Seminar (minimum grade of C)	1
	Credit Hours	12
	Total Credit Hours	123

 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

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