

Biochemistry/Medical Sciences Emphasis

2017 Fall Catalog and Beyond B.S. Sample Program Plans

Since the Biochemistry major is rigorous and highly sequential, summer session options are included to promote timely progress to degree while maintaining a manageable course load.

Math Placement is Intermediate Algebra (ARC 35)

	Fall	Winter	Spring	Summer
<u>Year One</u>	Intermediate Algebra 35 ⁽⁰⁾	Math 6A ⁽⁴⁾	Math 6B ⁽⁴⁾	Chemistry 1A, 1LA ⁽⁵⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Chemistry 1B, 1LB ⁽⁵⁾
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾		Biochemistry 96 ⁽¹⁾	
	Biochemistry 95 ⁽¹⁾			
<u>Year Two</u>	Chemistry 1C, 1LC ⁽⁵⁾	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾
	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	*Biochemistry 100 ^(Optional) (4)
	Math 7A ⁽⁴⁾	Math 7B ⁽⁴⁾	Physics 2A, 2LA ⁽⁵⁾	
	Biochemistry 015 ⁽³⁾	Math 46 ^(Optional) (4)		
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	
	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	
		Biochemistry 98I ⁽¹⁾		
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	Biochemistry 120 ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Statistics 100A ⁽⁵⁾	
	Cell Biology & Neuroscience 101 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾			Minimum units 180

Math Placement is MATH 5

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 5 ⁽⁴⁾	Math 7A ⁽⁴⁾	Math 7B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Biology 5A, 5LA ⁽⁵⁾	
	Breadth or Elective ⁽⁴⁾	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾
	Biochemistry 95 ⁽¹⁾	Breadth or Elective ⁽⁴⁾	Biochemistry 96 ⁽¹⁾	
<u>Year Two</u>	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
	Math 46 ^(Optional) (4)	Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^(Optional) (4)	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Statistics 100A ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
		Biochemistry 98I ⁽¹⁾		
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	Biochemistry 120 ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	
	Cell Biology & Neuroscience 101 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁵⁾	
	Breadth or Elective ⁽⁴⁾			Minimum units 180

Math Placement is MATH 6A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 6A ⁽⁴⁾	Math 6B ⁽⁴⁾	Math 7A ⁽⁴⁾	Breadth or Elective ⁽⁴⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Biology 5A, 5LA ⁽⁵⁾	
	Chemistry 1W ⁽³⁾	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾
	Biochemistry 95 ⁽¹⁾		Biochemistry 96 ⁽¹⁾	
<u>Year Two</u>	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	*Biochemistry 100 ^{(Optional) (4)}
	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
	Math 7B ⁽⁴⁾	Biochemistry 15 ⁽³⁾	Math 46 ^{(Optional) (4)}	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Statistics 100A ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Biochemistry 98I ⁽¹⁾	
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	Biochemistry 120 ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	
	Cell Biology & Neuroscience 101 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁵⁾	
				Minimum units 180

Math Placement is MATH 7A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 7A ⁽⁴⁾	Math 7B ⁽⁴⁾	Math 46 ^{(Optional) (4)}	
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾	
	Biochemistry 95 ⁽¹⁾	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	
<u>Year Two</u>			Biochemistry 96 ⁽¹⁾	
	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
<u>Year Three</u>	Breadth or Elective ⁽⁴⁾	Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^{(Optional) (4)}	
	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Statistics 100A ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Biochemistry 98I ⁽¹⁾	
<u>Year Four</u>	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	Biochemistry 120 ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	
	Cell Biology & Neuroscience 101 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
			Minimum units 180	

Math Placement is MATH 7B

	Fall	Winter	Spring	Summer
Year One	Math 7B ₍₄₎	Math 46 <small>(Optional)</small> ₍₄₎	Breadth or Elective ₍₄₎	
	English 1A ₍₄₎	English 1B ₍₄₎	Chemistry 1C, 1LC ₍₅₎	
	Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Biochemistry 96 ₍₁₎	
	Biochemistry 95 ₍₁₎	Biology 5A, 5LA ₍₅₎	Biology 5B ₍₄₎	
Year Two	Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	
	Biology 5C ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
	Breadth or Elective ₍₄₎	Biochemistry 15 ₍₃₎	*Biochemistry 100 <small>(Optional)</small> ₍₄₎	
Year Three	Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
	Biology 102 ₍₄₎	Statistics 100A ₍₅₎	UD Biochemistry Elective ₍₄₎	
	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	Biochemistry 98I ₍₁₎	
	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
Year Four	Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	Biochemistry 120 ₍₄₎	
	English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	Breadth or Elective ₍₄₎	
	Cell Biology & Neuroscience 101 ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
			Breadth or Elective ₍₄₎	Minimum units 180

NOTE

BCH 100 ENROLLMENT: Students who earn a grade lower than “B-“ in BIOL 5A or CHEM 08A are strongly encouraged to complete BCH 100 during their second year of residence to better prepare themselves for BCH 110A, BCH 110B, and BCH 110C.

MATH-Please ensure that you follow the math pathway provided and work your way through the MATH 7 series.

STAT 100A-If you have received STAT048 credit, you will need to complete STAT100B in place of STAT100A to avoid duplication of credit.



Biochemistry/Medical Sciences Emphasis

2016 Fall Catalog and Prior B.S. Sample Program Plans

Since the Biochemistry major is rigorous and highly sequential, summer session options are included to promote timely progress to degree while maintaining a manageable course load.

Math Placement is Intermediate Algebra (ARC 35)

	Fall	Winter	Spring	Summer
<u>Year One</u>	Intermediate Algebra 35 ⁽⁰⁾	Math 6A ⁽⁴⁾	Math 6B ⁽⁴⁾	Chemistry 1A, 1LA ⁽⁵⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Chemistry 1B, 1LB ⁽⁵⁾
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾		Biochemistry 96 ⁽¹⁾	
<u>Year Two</u>	Chemistry 1C, 1LC ⁽⁵⁾	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾
	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	*Biochemistry 100 ^{(Optional) (4)}
	Math 9A ⁽⁴⁾	Math 9B ⁽⁴⁾	Physics 2A, 2LA ⁽⁵⁾	
		Biochemistry 015 ⁽³⁾	Math 46 ^{(Optional) (4)}	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Statistics 100A ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	
			Biochemistry 98I ⁽¹⁾	
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	Biochemistry 120 ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Cell Biology & Neuroscience 101 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾			Minimum units 180

Math Placement is MATH 5

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 5 ⁽⁴⁾	Math 9A ⁽⁴⁾	Math 9B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Biology 5A, 5LA ⁽⁵⁾	
	Breadth or Elective ⁽⁴⁾	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾
	Biochemistry 95 ⁽¹⁾	Breadth or Elective ⁽⁴⁾	Biochemistry 96 ⁽¹⁾	
<u>Year Two</u>	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁵⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
	Math 46 ^{(Optional) (4)}	Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^{(Optional) (4)}	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
			Biochemistry 98I ⁽¹⁾	
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	Biochemistry 120 ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Statistics 100A ⁽⁵⁾	
	Cell Biology & Neuroscience 101 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁵⁾	
	Breadth or Elective ⁽⁴⁾			Minimum units 180

Math Placement is MATH 6A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 6A ⁽⁴⁾	Math 6B ⁽⁴⁾	Math 9A ⁽⁴⁾	Breadth or Elective ⁽⁴⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Biology 5A, 5LA ⁽⁵⁾	
	Chemistry 1W ⁽³⁾	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾
	Biochemistry 95 ⁽¹⁾		Biochemistry 96 ⁽¹⁾	
<u>Year Two</u>	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾
	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
	Math 9B ⁽⁴⁾	Biochemistry 15 ⁽³⁾	Math 46 ^(Optional) ⁽⁴⁾	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Biochemistry 98I ⁽¹⁾	
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	Biochemistry 120 ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Statistics 100A ⁽⁵⁾	
	Cell Biology & Neuroscience 101 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁵⁾	
				Minimum units 180

Math Placement is MATH 9A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 9A ⁽⁴⁾	Math 9B ⁽⁴⁾	Math 46 ^(Optional) ⁽⁴⁾	
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾	
	Biochemistry 95 ⁽¹⁾	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	
<u>Year Two</u>			Biochemistry 96 ⁽¹⁾	
	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
<u>Year Three</u>	Breadth or Elective ⁽⁴⁾	Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾	
	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Biochemistry 98I ⁽¹⁾	
<u>Year Four</u>	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	Biochemistry 120 ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Statistics 100A ⁽⁵⁾	
	Cell Biology & Neuroscience 101 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Minimum units 180

Math Placement is MATH 9B

	Fall	Winter	Spring	Summer
Year One	Math 9B ₍₄₎	Math 46 <small>(Optional)</small> ₍₄₎	Breadth or Elective ₍₄₎	
	English 1A ₍₄₎	English 1B ₍₄₎	Chemistry 1C, 1LC ₍₅₎	
	Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Biochemistry 96 ₍₁₎	
	Biochemistry 95 ₍₁₎	Biology 5A, 5LA ₍₅₎	Biology 5B ₍₄₎	
Year Two	Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	
	Biology 5C ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
	Breadth or Elective ₍₄₎	Biochemistry 15 ₍₃₎	*Biochemistry 100 <small>(Optional)</small> ₍₄₎	
Year Three	Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
	Biology 102 ₍₄₎	Breadth or Elective ₍₄₎	UD Elective ₍₄₎	
	Breadth or Elective ₍₄₎	UD Elective ₍₄₎	Biochemistry 98I ₍₁₎	
	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
Year Four	Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	Biochemistry 120 ₍₄₎	
	English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	Statistics 100A ₍₅₎	
	Cell Biology & Neuroscience 101 ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
			Breadth or Elective ₍₄₎	Minimum units 180

NOTE

BCH 100 ENROLLMENT: Students who earn a grade lower than “B-“in BIOL 5A or CHEM 08A are strongly encouraged to complete BCH 100 during their second year of residence to better prepare themselves for BCH 110A, BCH 110B, and BCH 110C.

ORGANIC CHEMISTRY-The CHEM 12 series has been renumbered to CHEM 08 series beginning 2017 fall.

MATH- A new MATH 7 series has been introduced for incoming 2017 freshman, **please do not enroll in this course as a continuing student.** Please continue on the current math pathway you are on.

STAT 100A-If you have received STAT048 credit, you will need to complete STAT100B in place of STAT100A to avoid duplication of credit.



Biochemistry/Biology Emphasis

2017 Fall Catalog and Beyond B.S. Sample Program Plans

Since the Biochemistry major is rigorous and highly sequential, summer session options are included to promote timely progress to degree while maintaining a manageable course load.

Math Placement is Intermediate Algebra (ARC 35)

	Fall	Winter	Spring	Summer
<u>Year One</u>	Intermediate Algebra 35 ⁽⁰⁾	Math 6A ⁽⁴⁾	Math 6B ⁽⁴⁾	Chemistry 1A, 1LA ⁽⁵⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Chemistry 1B, 1LB ⁽⁵⁾
	Biochemistry 95 ⁽¹⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾		Breadth or Elective ⁽⁴⁾	
<u>Year Two</u>				
	Chemistry 1C, 1LC ⁽⁵⁾	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾
	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾
<u>Year Three</u>	Math 7A ⁽⁴⁾	Math 7B ⁽⁴⁾	Math 46 ⁽⁴⁾	
		Biochemistry 15 ⁽³⁾		
	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	Statistics 100A ⁽⁵⁾
<u>Year Four</u>	Biology 102 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	
	Biochemistry 162 ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾		
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾		
			Minimum units 180	

Math Placement is MATH 5

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 5 ⁽⁴⁾	Math 7A ⁽⁴⁾	Math 7B ⁽⁴⁾	Math 46 ⁽⁴⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Biology 5A, 5LA ⁽⁵⁾	
	Biochemistry 95 ⁽¹⁾	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾
	Breadth or Elective ⁽⁴⁾		Breadth or Elective ⁽⁴⁾	
<u>Year Two</u>				
	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
<u>Year Three</u>		Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾	
	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Statistics 100A ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
<u>Year Four</u>	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾		
	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	
	UD Biology Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
			Minimum units 180	

Math Placement is MATH 6A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 6A ⁽⁴⁾	Math 6B ⁽⁴⁾	Math 7A ⁽⁴⁾	
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Biology 5A, 5LA ⁽⁵⁾	
	CHEM 1W ⁽³⁾	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾
	Biochemistry 95 ⁽¹⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
<u>Year Two</u>	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾
	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
	Math 7B ⁽⁴⁾	Biochemistry 15 ⁽³⁾	Math 46 ⁽⁴⁾	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Statistics 100A ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	
	UD Biology Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
				Minimum units 180

Math Placement is MATH 7A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 7A ⁽⁴⁾	Math 7B ⁽⁴⁾	Math 46 ⁽⁴⁾	
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾	
	BCH 95 ⁽¹⁾	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	
<u>Year Two</u>	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
		Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Statistics 100A ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾		
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	
	UD Biology Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾			Minimum units 180

Math Placement is MATH 7B

	Fall	Winter	Spring	Summer
Year One	Math 7B ⁽⁴⁾	Math 46 ⁽⁴⁾		
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾	
	BCH 95 ⁽¹⁾	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	
Year Two	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
		Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾	
Year Three	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	STAT 100A ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾		
Year Four	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	
	UD Biology Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾		Minimum units 180

NOTE

BCH 100 ENROLLMENT: Students who earn a grade lower than “B-“in BIOL 5A or CHEM 08A are strongly encouraged to complete BCH 100 during their second year of residence to better prepare themselves for BCH 110A, BCH 110B, and BCH 110C.

MATH-Please ensure that you follow the math pathway provided and work your way through the MATH 7 series.

STAT 100A-If you have received STAT048 credit, you will need to complete STAT100B in place of STAT100A to avoid duplication of credit.



Biochemistry/Biology Emphasis

2016 Fall Catalog and Prior B.S. Sample Program Plans

Since the Biochemistry major is rigorous and highly sequential, summer session options are included to promote timely progress to degree while maintaining a manageable course load.

Math Placement is Intermediate Algebra (ARC 35)

	Fall	Winter	Spring	Summer
<u>Year One</u>	Intermediate Algebra 35 ⁽⁰⁾	Math 6A ⁽⁴⁾	Math 6B ⁽⁴⁾	Chemistry 1A, 1LA ⁽⁵⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Chemistry 1B, 1LB ⁽⁵⁾
	Biochemistry 95 ⁽¹⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾		Breadth or Elective ⁽⁴⁾	
<u>Year Two</u>	Chemistry 1C, 1LC ⁽⁵⁾	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾
	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	*Biochemistry 100 ^{(Optional)(4)}
	Math 9A ⁽⁴⁾	Math 9B ⁽⁴⁾	Math 46 ⁽⁴⁾	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	Statistics 100A ⁽⁵⁾
	Biology 102 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	UD Biology Elective ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
			Minimum units 180	

Math Placement is MATH 5

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 5 ⁽⁴⁾	Math 9A ⁽⁴⁾	Math 9B ⁽⁴⁾	Math 46 ⁽⁴⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Biology 5A, 5LA ⁽⁵⁾	
	Biochemistry 95 ⁽¹⁾	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾
	Breadth or Elective ⁽⁴⁾		Breadth or Elective ⁽⁴⁾	
<u>Year Two</u>	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
		Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^{(Optional)(4)}	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾		
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Statistics 100A ⁽⁵⁾	
	UD Biology Elective ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
				Minimum units 180

Math Placement is MATH 6A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 6A ₍₄₎	Math 6B ₍₄₎	Math 9A ₍₄₎	
	English 1A ₍₄₎	English 1B ₍₄₎	Biology 5A, 5LA ₍₅₎	
	CHEM 1W ₍₃₎	Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Chemistry 1C, 1LC ₍₅₎
	Biochemistry 95 ₍₁₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
<u>Year Two</u>	Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	*Biochemistry 100 <small>(Optional)</small> ₍₄₎
	Biology 5B ₍₄₎	Biology 5C ₍₄₎	Breadth or Elective ₍₄₎	
	Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
	Math 9B ₍₄₎	Biochemistry 15 ₍₃₎	Math 46 ₍₄₎	
<u>Year Three</u>	Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
	Biology 102 ₍₄₎	UD Biochemistry Elective ₍₄₎	UD Biochemistry Elective ₍₄₎	
	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
<u>Year Four</u>	Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	UD Biology Elective ₍₄₎	
	English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	Statistics 100A ₍₅₎	
	UD Biology Elective ₍₄₎	UD Biology Elective ₍₄₎	Breadth or Elective ₍₄₎	
				Minimum units 180

Math Placement is MATH 9A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 9A ₍₄₎	Math 9B ₍₄₎	Math 46 ₍₄₎	
	English 1A ₍₄₎	English 1B ₍₄₎	Breadth or Elective ₍₄₎	
	Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Chemistry 1C, 1LC ₍₅₎	
	BCH 95 ₍₁₎	Biology 5A, 5LA ₍₅₎	Biology 5B ₍₄₎	
<u>Year Two</u>	Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	
	Biology 5C ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
		Biochemistry 15 ₍₃₎	*Biochemistry 100 <small>(Optional)</small> ₍₄₎	
<u>Year Three</u>	Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
	Biology 102 ₍₄₎	Breadth or Elective ₍₄₎	UD Biochemistry Elective ₍₄₎	
	Breadth or Elective ₍₄₎	UD Biochemistry Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎		
<u>Year Four</u>	Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	UD Biology Elective ₍₄₎	
	English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	Statistics 100A ₍₅₎	
	UD Biology Elective ₍₄₎	UD Biology Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Breadth or Elective ₍₄₎			Minimum units 180

Math Placement is MATH 9B

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 9B ⁽⁴⁾	Math 46 ⁽⁴⁾		
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾	
	BCH 95 ⁽¹⁾	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	
<u>Year Two</u>	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5C ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
		Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾		
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Biology Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	STAT 100A ⁽⁵⁾	
	UD Biology Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	UD Biology Elective ⁽⁴⁾		Minimum units 180

NOTE

BCH 100 ENROLLMENT: Students who earn a grade lower than “B-“in BIOL 5A or CHEM 08A are strongly encouraged to complete BCH 100 during their second year of residence to better prepare themselves for BCH 110A, BCH 110B, and BCH 110C.

ORGANIC CHEMISTRY-The CHEM 12 series has been renumbered to CHEM 08 series beginning 2017 fall.

MATH- A new MATH 7 series has been introduced for incoming 2017 freshman, **please do not enroll in this course as a continuing student.** Please continue on the current math pathway you are on.

STAT 100A-If you have received STAT048 credit, you will need to complete STAT100B in place of STAT100A to avoid duplication of credit.



Biochemistry/Chemistry Emphasis

2017 Fall Catalog and Beyond B.S. Sample Program Plans

Since the Biochemistry major is rigorous and highly sequential, summer session options are included to promote timely progress to degree while maintaining a manageable course load.

Math Placement is Intermediate Algebra (ARC 35)

	Fall	Winter	Spring	Summer
<u>Year One</u>	Intermediate Algebra 35 ⁽⁰⁾	Math 6A ⁽⁴⁾	Math 6B ⁽⁴⁾	Chemistry 1A, 1LA ⁽⁵⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Chemistry 1B, 1LB ⁽⁵⁾
	Biochemistry 95 ⁽¹⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾			
<u>Year Two</u>	Chemistry 1C, 1LC ⁽⁵⁾	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾
	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾
	Math 7A ⁽⁴⁾	Math 7B ⁽⁴⁾	Math 46 ⁽⁴⁾	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	Physics 2B, 2LB ⁽⁵⁾
	Biology 102 ⁽⁴⁾	Chemistry 5 ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	Physics 2C, 2LC ⁽⁵⁾
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Physics 2A, 2LA ⁽⁵⁾	
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Chemistry Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Statistics 100A ⁽⁵⁾	
	UD Chemistry Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Minimum units 180

Math Placement is MATH 5

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 5 ⁽⁴⁾	Math 7A ⁽⁴⁾	Math 7B ⁽⁴⁾	Math 46 ⁽⁴⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Biochemistry 95 ⁽¹⁾	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
<u>Year Two</u>	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
<u>Year Three</u>	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Chemistry 5 ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
<u>Year Four</u>	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Chemistry Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	Statistics 100A ⁽⁵⁾	
	UD Chemistry Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Minimum units 180

Math Placement is MATH 6A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 6A ₍₄₎	Math 6B ₍₄₎	Math 7A ₍₄₎	
	English 1A ₍₄₎	English 1B ₍₄₎	Breadth or Elective ₍₄₎	
	Chemistry 1W ₍₃₎	Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Chemistry 1C, 1LC ₍₅₎
	Biochemistry 95 ₍₁₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
<u>Year Two</u>	Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	*Biochemistry 100 <small>(Optional) (4)</small>
	Biology 5A, 5LA ₍₅₎	Biology 5B ₍₄₎	Biology 5C ₍₄₎	
	Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
	Math 7B ₍₄₎	Biochemistry 15 ₍₃₎	Math 46 ₍₄₎	
<u>Year Three</u>	Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
	Biology 102 ₍₄₎	Chemistry 5 ₍₅₎	UD Biochemistry Elective ₍₄₎	
	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
<u>Year Four</u>	Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	UD Chemistry Elective ₍₄₎	
	English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	Statistics 100A ₍₅₎	
	UD Chemistry Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
				Minimum units 180

Math Placement is MATH 7A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 7A ₍₄₎	Math 7B ₍₄₎	Math 46 ₍₄₎	
	English 1A ₍₄₎	English 1B ₍₄₎	Breadth or Elective ₍₄₎	
	Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Chemistry 1C, 1LC ₍₅₎	
	Biochemistry 95 ₍₁₎	Biology 5A, 5LA ₍₅₎	Biology 5B ₍₄₎	
<u>Year Two</u>	Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	
	Biology 5C ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
		Biochemistry 15 ₍₃₎	*Biochemistry 100 <small>(Optional) (4)</small>	
<u>Year Three</u>	Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
	Biology 102 ₍₄₎	Chemistry 5 ₍₅₎	UD Biochemistry Elective ₍₄₎	
	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Breadth or Elective ₍₄₎		Breadth or Elective ₍₄₎	
<u>Year Four</u>	Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	UD Chemistry Elective ₍₄₎	
	English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	Statistics 100A ₍₅₎	
	UD Chemistry Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Breadth or Elective ₍₄₎			Minimum units 180

Math Placement is MATH 7B

	Fall	Winter	Spring	Summer
Year One	Math 7B ₍₄₎	Math 46 ₍₄₎		
	English 1A ₍₄₎	English 1B ₍₄₎	Breadth or Elective ₍₄₎	
	Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Chemistry 1C, 1LC ₍₅₎	
	Biochemistry 95 ₍₁₎	Biology 5A, 5LA ₍₅₎	Biology 5B ₍₄₎	
Year Two	Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	
	Biology 5C ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
		Biochemistry 15 ₍₃₎	*Biochemistry 100 <small>(Optional)</small> ₍₄₎	
Year Three	Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
	Biology 102 ₍₄₎	Breadth or Elective ₍₄₎	UD Biochemistry Elective ₍₄₎	
	Breadth or Elective ₍₄₎	Chemistry 5 ₍₅₎	Breadth or Elective ₍₄₎	
	Breadth or Elective ₍₄₎		Breadth or Elective ₍₄₎	
Year Four	Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	UD Chemistry Elective ₍₄₎	
	English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	Statistics 100A ₍₅₎	
	UD Chemistry Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Breadth or Elective ₍₄₎		Breadth or Elective ₍₄₎	Minimum units 180

NOTE

BCH 100 ENROLLMENT: Students who earn a grade lower than “B-“in BIOL 5A or CHEM 08A are strongly encouraged to complete BCH 100 during their second year of residence to better prepare themselves for BCH 110A, BCH 110B, and BCH 110C.

MATH-Please ensure that you follow the math pathway provided and work your way through the MATH 7 series.

STAT 100A-If you have received STAT048 credit, you will need to complete STAT100B in place of STAT100A to avoid duplication of credit.



Biochemistry/Chemistry Emphasis

2017 Fall Catalog and Prior B.S. Sample Program Plans

Since the Biochemistry major is rigorous and highly sequential, summer session options are included to promote timely progress to degree while maintaining a manageable course load.

Math Placement is Intermediate Algebra (ARC 35)

	Fall	Winter	Spring	Summer
<u>Year One</u>	Intermediate Algebra 35 ⁽⁰⁾	Math 6A ⁽⁴⁾	Math 6B ⁽⁴⁾	Chemistry 1A, 1LA ⁽⁵⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Chemistry 1B, 1LB ⁽⁵⁾
	Biochemistry 95 ⁽¹⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Breadth or Elective ⁽⁴⁾			
<u>Year Two</u>	Breadth or Elective ⁽⁴⁾			
	Chemistry 1C, 1LC ⁽⁵⁾	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾
	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾
	Math 9A ⁽⁴⁾	Math 9B ⁽⁴⁾	Math 46 ⁽⁴⁾	
<u>Year Three</u>		Biochemistry 15 ⁽³⁾		
	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	Physics 2B, 2LB ⁽⁵⁾
	Biology 102 ⁽⁴⁾	Chemistry 5 ⁽⁵⁾	UD Chemistry Elective ⁽⁴⁾	Physics 2C, 2LC ⁽⁵⁾
	Statistics 100A ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	Physics 2A, 2LA ⁽⁵⁾	
<u>Year Four</u>				
	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Chemistry Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	UD Biochemistry Elective ⁽⁴⁾	
	UD Biochemistry Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Minimum units 180

Math Placement is MATH 5

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 5 ⁽⁴⁾	Math 9A ⁽⁴⁾	Math 9B ⁽⁴⁾	Math 46 ⁽⁴⁾
	English 1A ⁽⁴⁾	English 1B ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
	Biochemistry 95 ⁽¹⁾	Chemistry 1A, 1LA ⁽⁵⁾	Chemistry 1B, 1LB ⁽⁵⁾	Chemistry 1C, 1LC ⁽⁵⁾
	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
<u>Year Two</u>				
	Chemistry 8A/8LA ⁽⁴⁾	Chemistry 8B/8LB ⁽⁴⁾	Chemistry 8C/8LC ⁽⁴⁾	
	Biology 5A, 5LA ⁽⁵⁾	Biology 5B ⁽⁴⁾	Biology 5C ⁽⁴⁾	
	Physics 2A, 2LA ⁽⁵⁾	Physics 2B, 2LB ⁽⁵⁾	Physics 2C, 2LC ⁽⁵⁾	
<u>Year Three</u>		Biochemistry 15 ⁽³⁾	*Biochemistry 100 ^(Optional) ⁽⁴⁾	
	Biochemistry 110A ⁽⁴⁾	Biochemistry 110B ⁽⁴⁾	Biochemistry 110C ⁽⁴⁾	
	Biology 102 ⁽⁴⁾	Chemistry 5 ⁽⁵⁾	UD Chemistry Elective ⁽⁴⁾	
	Statistics 100A ⁽⁵⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	
<u>Year Four</u>				
	Chemistry 109 ⁽⁴⁾	Biochemistry 184 ⁽⁴⁾	UD Biochemistry Elective ⁽⁴⁾	
	English 1C or 1SC ⁽⁴⁾	Biochemistry 162 ⁽⁵⁾	UD Chemistry Elective ⁽⁴⁾	
	UD Biochemistry Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Breadth or Elective ⁽⁴⁾	Minimum units 180

Math Placement is MATH 6A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 6A ₍₄₎	Math 6B ₍₄₎	Math 9A ₍₄₎	
	English 1A ₍₄₎	English 1B ₍₄₎	Breadth or Elective ₍₄₎	
	Chemistry 1W ₍₃₎	Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Chemistry 1C, 1LC ₍₅₎
	Biochemistry 95 ₍₁₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
<u>Year Two</u>	Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	*Biochemistry 100 <small>(Optional) (4)</small>
	Biology 5A, 5LA ₍₅₎	Biology 5B ₍₄₎	Biology 5C ₍₄₎	
	Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
	Math 9B ₍₄₎	Biochemistry 15 ₍₃₎	Math 46 ₍₄₎	
<u>Year Three</u>	Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
	Biology 102 ₍₄₎	Chemistry 5 ₍₅₎	UD Chemistry Elective ₍₄₎	
	Statistics 100A ₍₅₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
<u>Year Four</u>	Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	UD Biochemistry Elective ₍₄₎	
	English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	UD Chemistry Elective ₍₄₎	
	UD Biochemistry Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
				Minimum units 180

Math Placement is MATH 9A

	Fall	Winter	Spring	Summer
<u>Year One</u>	Math 9A ₍₄₎	Math 9B ₍₄₎	Math 46 ₍₄₎	
	English 1A ₍₄₎	English 1B ₍₄₎	Breadth or Elective ₍₄₎	
	Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Chemistry 1C, 1LC ₍₅₎	
	Biochemistry 95 ₍₁₎	Biology 5A, 5LA ₍₅₎	Biology 5B ₍₄₎	
<u>Year Two</u>	Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	
	Biology 5C ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
		Biochemistry 15 ₍₃₎	*Biochemistry 100 <small>(Optional) (4)</small>	
<u>Year Three</u>	Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
	Biology 102 ₍₄₎	Chemistry 5 ₍₅₎	UD Chemistry Elective ₍₄₎	
	Statistics 100A ₍₅₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Breadth or Elective ₍₄₎		Breadth or Elective ₍₄₎	
<u>Year Four</u>	Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	UD Biochemistry Elective ₍₄₎	
	English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	UD Chemistry Elective ₍₄₎	
	UD Biochemistry Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
	Breadth or Elective ₍₄₎			Minimum units 180

Math Placement is MATH 9B

Year One

Fall	Winter	Spring	Summer
Math 9B ₍₄₎	Math 46 ₍₄₎		
English 1A ₍₄₎	English 1B ₍₄₎	Breadth or Elective ₍₄₎	
Chemistry 1A, 1LA ₍₅₎	Chemistry 1B, 1LB ₍₅₎	Chemistry 1C, 1LC ₍₅₎	
Biochemistry 95 ₍₁₎	Biology 5A, 5LA ₍₅₎	Biology 5B ₍₄₎	

Year Two

Chemistry 8A/8LA ₍₄₎	Chemistry 8B/8LB ₍₄₎	Chemistry 8C/8LC ₍₄₎	
Biology 5C ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
Physics 2A, 2LA ₍₅₎	Physics 2B, 2LB ₍₅₎	Physics 2C, 2LC ₍₅₎	
	Biochemistry 15 ₍₃₎	*Biochemistry 100 <small>(Optional)</small> ₍₄₎	

Year Three
Year Four

Biochemistry 110A ₍₄₎	Biochemistry 110B ₍₄₎	Biochemistry 110C ₍₄₎	
Biology 102 ₍₄₎	Chemistry 5 ₍₅₎	UD Chemistry Elective ₍₄₎	
Statistics 100A ₍₅₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
Breadth or Elective ₍₄₎		Breadth or Elective ₍₄₎	
Chemistry 109 ₍₄₎	Biochemistry 184 ₍₄₎	UD Biochemistry Elective ₍₄₎	
English 1C or 1SC ₍₄₎	Biochemistry 162 ₍₅₎	UD Chemistry Elective ₍₄₎	
UD Biochemistry Elective ₍₄₎	Breadth or Elective ₍₄₎	Breadth or Elective ₍₄₎	
Breadth or Elective ₍₄₎		Breadth or Elective ₍₄₎	Minimum units 180

NOTE

BCH 100 ENROLLMENT: Students who earn a grade lower than “B-“in BIOL 5A or CHEM 08A are strongly encouraged to complete BCH 100 during their second year of residence to better prepare themselves for BCH 110A, BCH 110B, and BCH 110C.

ORGANIC CHEMISTRY-The CHEM 12 series has been renumbered to CHEM 08 series beginning 2017 fall.

MATH- A new MATH 7 series has been introduced for incoming 2017 freshman, **please do not enroll in this course as a continuing student.** Please continue on the current math pathway you are on.

STAT 100A-If you have received STAT048 credit, you will need to complete STAT100B in place of STAT100A to avoid duplication of credit.

