Year One

Year Four Year Three

Year Four Year Three



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 |
|--|----------------------------------|------------------------------------|----------------------------------|
| 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₎ | | | |
| | | | |
| 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) | |
| | | | |
| 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₎ | |
| | | | |
| 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 |
|------------------------------------|------------------------------------|------------------------------------|----------------------------------|
| 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₎ | |
| | | | |
| 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) | |
| | | | |
| 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₎ | |
| | | | |
| 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 |

| Year One |
|------------|
| Year Two |
| Year Three |
| Year Four |

Year Four Year Three Year Two Year One

| Fall | Winter | Spring | Summer |
|--|----------------------------------|------------------------------------|----------------------------------|
| 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₎ | |
| 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) | |
| | | | |
| 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₎ | |
| Chemistry 109 ₍₄₎ | Biochemistry 184 ₍₄₎ | Biochemistry 120 ₍₄₎ | T |
| 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

| | Triutii i iucciiiciit | D 11111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
|---|------------------------------------|---|-------------------|
| Fall | Winter | Spring | Summer |
| 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₎ | |
| | | 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₎ | |
| 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₎ | |
| 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

| | wath I faccincit i | S IVITALII / ID | |
|---|------------------------------------|------------------------------------|-------------------|
| Fall | Winter | Spring | Summer |
| Math 7B ₍₄₎ | Math 46 (Optional) (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₎ | |
| | | | |
| 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 (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₎ | |
| 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₎ | |
| | | 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 |
|------------------------------------|----------------------------------|------------------------------------|----------------------------------|
| 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₎ | | | |
| Chamisters 1C, 1LC | Chamistus OA/OIA | Charatatura OD/OI D | Chaminton 9C/9LC |
| 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) | |
| | | | |
| 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₎ | |
| | | | |
| 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 |
|------------------------------------|------------------------------------|------------------------------------|----------------------------------|
| 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₎ | |
| | | | |
| 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) | |
| | | | |
| 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₎ | |
| | | | |
| 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 |

Year One

| | Fall | Winter | Spring | Summer |
|---|------------------------------------|------------------------------------|------------------------------------|----------------------------------|
| | 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₎ | |
| | | | | |
| | 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) | |
| | | | | |
| | 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₎ | |
| | | | | |
| | 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 Winter

| Fall | Winter | Spring | Summer |
|------------------------------------|------------------------------------|------------------------------------|-------------------|
| 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₎ | |
| | | 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₎ | |
| 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₎ | |
| 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 |

Year Two Year One

Year Four Year Three

Math Placement is MATH 9B

| Matil Flacement is MATIL 7D | | | | | |
|--|------------------------------------|------------------------------------|--------|--|--|
| Fall | Winter | Spring | Summer | | |
| Math 9B ₍₄₎ | Math 46 (Optional) (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₎ | | | |
| | | | | | |
| 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 (Optional) (4) | | | |
| | | | | | |
| 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₎ | | | |
| | | | | | |
| 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₎ | | | |

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.

Breadth or Elective(4)

Minimum units 180

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, <u>please do not enroll in this</u> <u>course as a continuing student.</u> 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.

