

**Southwestern Illinois College  
Pathway - Mathematics- Pure**

**Southwestern Illinois College  
Associate in Arts Degree**

**Fall Year 1**

| SWIC Course  | Hours     |
|--|-----------|
| ENG 101 Rhetoric and Composition I                 | 3         |
| MATH 203 <sup>2</sup> Analytic Geometry&Calculus I | 5         |
| IAI HUM <sup>1</sup> IAI Humanities                | 3         |
| IAI SS <sup>1</sup> IAI Social Science             | 3         |
| HES XXX Human Well Being                           | 2         |
| <b>Total</b>                                       | <b>16</b> |

**Spring Year 1**

| SWIC Course   | Hours     |
|---|-----------|
| ENG 102 Rhetoric and Composition II                 | 3         |
| MATH 204 <sup>2</sup> Analytic Geometry&Calculus II | 5         |
| IAI Beh <sup>1</sup> IAI Behavioral Science         | 3         |
| PHYS 204 <sup>2</sup> Physics- Mechanics            | 4         |
| <b>Total</b>  | <b>15</b> |

**Fall Year 2**

| SWIC Course  | Hours     |
|--|-----------|
| COMM 151 Fund. Of Public Speaking                    | 3         |
| MATH 205 <sup>2</sup> Analytic Geometry&Calculus III | 4         |
| IAI LS <sup>2</sup> IAI Life Science w/Lab           | 4         |
| IAI FA <sup>1</sup> IAI Fine Arts                    | 3         |
| IAI HUM/FA <sup>1</sup> IAI Humanities or Fine Arts  | 3         |
| <b>Total</b>   | <b>17</b> |

**Spring Year 2**

| SWIC Course   | Hours     |
|---|-----------|
| MATH 290 <sup>2</sup> Differential Equations            | 3         |
| IAI C/H/SS/BS <sup>1</sup> IAI Comm/ Hum/SS/Beh         | 3         |
| IAI SS/BS <sup>1</sup> IAI Social or Behavioral Science | 3         |
| ELE XXX Elective(s)                                     | 4         |
| <b>Total</b>  | <b>13</b> |

**Summer Year 2**

| SWIC Course                                  | Hours    |
|--|----------|
| Math 210 <sup>2,3</sup> Computer Programming | 3        |
| <b>Total</b>                                 | <b>3</b> |

**Associate in Arts Degree Total 64**

**Southern Illinois University Edwardsville  
Bachelor of Science Degree**

**Fall Year 3**

| SIUE Course                                   | Hours     |
|---|-----------|
| MATH 223 Logic and Mathematical Reasoning     | 4         |
| ELE XXX Elective                              | 3         |
| MATH 321 Linear Algebra I                     | 3         |
| ELE XXX Math, Stat, OR, Sci, or Engr elective | 3         |
| ELE XXX Math, Stat, OR, Sci, or Engr elective | 3         |
| <b>Total</b>                                  | <b>16</b> |

**Spring Year 3**

| SIUE Course                                   | Hours     |
|---|-----------|
| MATH 350 Introduction to Real Analysis        | 4         |
| MATH 437 Differential Geometry                | 3         |
| ELE XXX Math, Stat, OR, Sci, or Engr elective | 3         |
| ELE XXX Math, Stat, OR, Sci, or Engr elective | 3         |
| IS XXX Interdisciplinary Course               | 3         |
| <b>Total</b>                                  | <b>16</b> |

**Fall Year 4**

| SIUE Course                            | Hours     |
|--|-----------|
| MATH 498 Senior Seminar                | 2         |
| MATH 320 Intro to Algebraic Structures | 3         |
| MATH 450 Real Analysis I               | 3         |
| MATH 421 Linear Algebra II             | 3         |
| ELE XXX Elective                       | 3         |
| <b>Total</b>                           | <b>14</b> |

**Spring Year 4**

| SIUE Course                             | Hours     |
|---|-----------|
| MATH 499 Senior Project                 | 2         |
| MATH 451 Intro to Complex Analysis      | 3         |
| MATH 4XX Mathematics Elective 400 level | 3         |
| MATH 420 Abstract Algebra <sup>1</sup>  | 3         |
| ELE XXX Elective                        | 3         |
| <b>Total</b>                            | <b>14</b> |

**Bachelor of Science Total 124**

<sup>1</sup> This course is only offered during odd numbered spring semesters. Because of this, students entering in an even numbered fall will not be able to complete this course during their usual course of study. If a student in the 2+2 program is on track to graduate in four years and have followed this plan, the Department will replace the Math 420 requirement with another acceptable course or offer an independent study course.

<sup>1</sup>Students need to complete one Human Relations and one Non-Western course. Please see advisor.

<sup>2</sup>All Math/Science courses require a grade of "C" or better.

<sup>3</sup>MATH 210 is offered in summer only.

\*\* Students must complete 50% or more of SIUE degree requirements at SIUE (120 hours required for graduation).