## SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE

#### 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 MATH 203<sup>2</sup> Analytic Geometry & Calculus I 5 IAI HUM1 **IAI** Humanities IAI SS<sup>1</sup> **IAI Social Science** 3 HES XXX **Human Well Being** 2 **Total** 16

#### **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
Total		15

#### 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
Total		17

#### **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
Total		13
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#### **Summer Year 2**

SWIC Course		Hours	
Math 210 <sup>2,3</sup>	Computer Programming	3	
Total		3	
Associate in Arts Degree Total		64	

<sup>&</sup>lt;sup>1</sup>Students need to complete one Human Relations and one Non-

# 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
Total		16

#### **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
Total		16

#### 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
Total		14

#### **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
Total		14
Rachelor of Science Total		124

<sup>&</sup>lt;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.

8/01/2025

Partnership Advising Office

Western course. Please see advisor.

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

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

<sup>\*</sup>Students must complete 50% or more of degree requirements at SIUE.

<sup>\*</sup>A course that satisfies both the ERGU and EREG requirement will only be counted as one and not both.