

## ASSOCIATE OF SCIENCE MATHEMATICS EMPHASIS

The Associate of Science degree with an emphasis in mathematics has a broad range of mathematical courses that are complemented by internship courses that students use as a preview for career paths. Students who have an Associate of Science degree may wish to transfer into advanced programs of mathematics, or they may continue in General Studies baccalaureate degree programs which they can tailor to their specific

interests. Interest in mathematics should involve a broad search to match personal interest to career potential.

### GRADUATION REQUIREMENTS

Students must complete a minimum of 90 credit hours with a minimum Grade Point Average (GPA) of 2.0 (C) average or better. All courses in this program must be completed with a 'C' or better. Thirty (30) of the last

45 credits must be earned at Southwestern before the Associate of Science degree is awarded.

Courses that are developmental in nature, designed to prepare students for college transfer courses, are not applicable to this degree.

Complete the graduation application process one term prior to the term of completion (i.e., spring term graduates must apply during winter term).



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PREREQUISITES	CIS101 (2) Computers in Society	MTH112 (4) Elementary Functions	Reading Score of ASSET39 COMPASS69	WR90 (3) Paragraph Fundamentals (or placement test score)	
FALL = 15-16 CREDITS	(4) Biological Science Course <sup>1</sup>	MTH251 (4) Calculus I (Differential Calculus)	(4) - (5) Natural/Applied Science Course <sup>2</sup>	WR121 (3) English Composition	
WINTER = 17-18 CREDITS	(3) Computer Language Course <sup>4</sup>	MTH252 (4) Calculus II (Integral Calculus)	(4) - (5) Natural/Applied Science Course <sup>2</sup>	WR122 (3) English Composition	(3) Arts and Letters/Social Sciences Course <sup>3</sup>
SPRING = 18-19 CREDITS	MTH265 (4) Probability and Statistics with Calculus	MTH253 (4) Calculus III (Infinite Sequence & Series)	(4) - (5) Natural/Applied Science Course <sup>2</sup>	WR123 (3) English Composition <sup>5</sup>	(3) Arts and Letters/Social Sciences Course <sup>3</sup>

### 50-53 CREDITS = FIRST YEAR TOTAL

FALL = 14-16 CREDITS	MTH254 (4) Vector Calculus I	MTH231 (4) Elements of Discrete Mathematics I	(3) Arts and Letters/Social Sciences Course <sup>3</sup>	(3) - (5) Mathematics/Science Course <sup>6</sup>
WINTER = 14-16 CREDITS	MTH255 (4) Vector Calculus II	MTH232 (4) Elements of Discrete Mathematics II	(3) Arts and Letters/Social Sciences Course <sup>3</sup>	(3) - (5) Mathematics/Science Course <sup>6</sup>
SPRING = 13-15 CREDITS	MTH256 (4) Differential Equations	SP111 (3) Fundamentals of Public Speaking	(3) Health/Fitness Course <sup>7</sup>	(3) - (5) Mathematics/Science Course <sup>6</sup>

### 41-47 CREDITS = SECOND YEAR TOTAL

### 91-100 CREDITS = TOTAL RECOMMENDED PROGRAM CREDITS

#### PROGRAM NOTES

<sup>1</sup>Biological sciences course selected from BI101, 201, or 234.

<sup>2</sup>Natural Applied Sciences Courses selected from: BI201, 202, 203, 231, 232, 233; CS160, 161, 162; ENGR201, 202, 203, 211, 212, 213; G201, 202, 203; PH211, 213, 213.

<sup>3</sup>Arts and Letters/Social Sciences courses selected from each of the following areas: Arts and Letters - two courses from: ENG104, 105,

106, 107, 108, 109, 201, 202, 203, 204, 205, 206; PHL101 or 102 (not both).

Social Sciences - Processes and Institutions, one course from: ANTH103; ECON201, 202; PS201, 202; SOC204, 205; Western Culture, one course from: HST101, 102, 103, 201, 202, 203.

<sup>4</sup>One computer language course selected from CIS133VB, CS160, 161, 162; ENGR112.

<sup>5</sup>WR227 may be substituted for WR123.

<sup>6</sup>Three additional mathematics/science courses selected from either the list provided in Note or the following list: BI234; G146, 207, 220; GS107, 108; MTH260.

<sup>7</sup>One health/fitness course from HE250, PE231 or three credits PE185.