

**Niagara County Community College
Cooperative Degree Program Curriculum Guide
Liberal Arts and Sciences: Math and Science Transfer Program**

This transfer guide outlines by category each of the curricular requirements necessary to learn a bachelor's degree in biology, mathematics, or veterinary science at Medaille College. Students who complete all the required courses in Niagara County Community College's **liberal arts and sciences: math and science (AS)** degree program and who use their program electives as advised in this document can earn their B.S. at Medaille in 60-69 credits, depending on the degree program.

Biology (B.S.)

General Education Requirements (30)

Credits completed at NCCC: (15)

Waived	GEN 110*
Waived	GEN 240
ENG 101 Writing I (3)	ENG 110 College Writing II (3)
Humanities/Arts Elective (3) **	GEN 230 Creative Expression (3)
MAT 120 (3)	MAT 115 Pre-Calculus (3)
HIS 120 (3) ***	GEN 220 Colonial N. America
SPE 102 Public Speaking (3) #	SPE 130 Public Speaking (3)

*Students complete an additional arts and sciences elective at Medaille.

** Use the Arts elective to choose one of the following: ART 123, 129, 130, 137, 138, 221; ENG 229 or 230; MUS 101, 115, 116, 117, 118, 133; THE 110, 113, or 117.

***Use a social science elective

Use a liberal arts elective (business and English) or a free elective (psychology)

Credits to be completed at Medaille: 12

ENG 200 Analytical Writing (3)
BIO 301 Epidemiology and Biostatistics (3)
GEN 410 Baccalaureate Capstone I (3)
GEN 411 Baccalaureate Capstone II (3) or two 300/400 level arts and sciences courses.

Biology Major (37 credits)

Major Requirements and Electives at NCCC: 14

BIO 213 and 214 Human Anatomy and Physiology Use math/science electives
BIO 221 Microbiology (4) Use math/science electives
BIO 205 Zoology (4)* (Use a free elective)

*Two credits transfer as free elective credit.

Major Requirements and Electives at Medaille: 23

- BIO 120 Botany (4)
- BIO 220 Cell Biology (3)
- BIO 320 Ecology (4)
- BIO 330 Genetics (3)
- Biology electives (9)

Additional LAS/CIS Requirements (25)

Additional Arts and Sciences Credits at NCCC: 17

- CHE 120 and 121 College Chemistry I and II (8) Use math/sciences lab science sequence.
- PHI 153 Ethics (3) Use humanities elective.
- CIS 100 Introduction to Computer Applications(3) Use CIS elective.
- MAT 121 Calculus II (4)*

*Substitutes for GEN 110.

Arts and Sciences Credits at Medaille: 8

- CHE 300 and 301 Organic Chemistry I and II (8)

General Electives

The following transfer as general elective credit: Health/PE course (2), two free elective courses (6), one social science elective (3), one MAT 121 credit, two credits of MAT 120-121 sequence and two credits of zoology.

Biology Credit Summary

	NCCC	MC
Core	15	12
Major	14	23
LAS	17	8
Free	16	23
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	62	66

Mathematics (B.S.)

General Education

Credits completed at NCCC: 18

Waived

ENG 101 Writing I (3)

Humanities/Arts Elective (3)**

HIS 120 United States to 1865 (3)***

MAT 120 Calculus/Analytical Geometry I (4) #

SPE 102 Public Speaking (3) ##

MAT 164 Intro. to Statistics (3) #

GEN 110*

ENG 110 College Writing II

GEN 230 Creative Expression

GEN 220 Colonial North America

MAT 251 Calculus I

SPE 130 Public Speaking

MAT 381 Statistics/Probability

*Students complete an additional arts and sciences course at Medaille.

** Use the Arts elective to choose one of the following: ART 123, 129, 130, 137, 138, 221; ENG 229 or 230; MUS 101, 115, 116, 117, 118, 133; THE 110, 113, or 117.

*** Use a social science elective.

Use mathematics and science electives

##Use a free elective.

Credits to be completed at Medaille: 12

ENG 200 Analytical Writing (3)

GEN 240 Scientific Discovery (3)

GEN 410 Baccalaureate Capstone I (3)

GEN 411 Baccalaureate Capstone II (3) or two 300/400 level arts and sciences courses.

Mathematics Major (B.S.)

Credits completed at NCCC : 12

MAT 121 Calculus and Analytical Geometry II

MAT 255 Linear Algebra (3)

MAT 230 Discrete Mathematics (4)

CIS 201 Micro Computer Applications (3)

Credits to be completed at Medaille: 24

MAT 255 Number Theory (3)

MAT 261 Calculus III (3)

MAT 342 Abstract Algebra (3)

MAT 361 Differential Equations (3)

MAT 382 Statistics and Probability II (3)

MAT 421 Real Variables (3)

MAT 442 Complex Analysis (3)
MAT 450 Topology (3)

Additional Liberal Arts and Sciences (23)

Credits completed at NCCC: 23

ENG 102 Writing II and Introduction to Literature (3)
CHM 120 and 121 [select with mandatory lab science sequence] (8)
one humanities and two social sciences courses (9)
Humanities/arts elective (3)*

*substitutes for GEN 110

General Electives

The health/PE course (2) and three “extra” MAT course credits as well any additional credits not counted toward the core curriculum or the LAS component count as free electives.

Mathematics Credit Summary

Core	18	12
Major	12	24
LAS	23	0
Free*	9	24
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	62	60

Veterinary Technology (B.S.)

General Education (27)

Courses completed at NCCC: 18

Waived

ENG 101 Writing I (3)

Humanities/Arts Elective(3)**

HIS 120 United States to 1865 (3)***

MAT 120 Calculus/Analytical Geometry I (4)

SPE 102 Public Speaking (3) #

MAT 164 Statistics (3)

GEN 110*

ENG 110 College Writing II

GEN 230 Creative Expression

GEN 220 Colonial North America

MAT 114 or MAT 115

SPE 130 Public Speaking (3)

MAT 201 Statistics (3)

*Students take an additional arts and sciences course at Medaille.

** Use humanities/arts elective. Choose one of the following: ART 123, 129, 137, 138, 221; ENG 229 or 230; MUS 101, 115, 116, 117, 118, 133; THE 110, 113, or 117.

***Use social science elective.

Use free elective.

Credits to be completed at Medaille: 9

ENG 200 Analytical Writing (3)

GEN 410 Baccalaureate Capstone I (3)

GEN 411 Baccalaureate Capstone II (3) or two 300/400 level arts and sciences courses.

Veterinary Technology (51)

Major Requirements and Electives at NCCC: 0

Major Requirements at Medaille: 51

Additional Arts and Sciences Courses (36)

Credits completed at NCCC: (27)

ENG 102 Writing II and Introduction to Literature (3)

BIO 213 and 214 Human Anatomy and Physiology (8)

BIO 221 Microbiology (4)

BIO 205 Zoology (4)*

CHE 120 College Chemistry I (4)

MAT 121 Calculus/Analytical Geometry II (4)**

Humanities/arts elective (3) #

Use math/science electives

Use math/science electives

Use free elective

Use math/science electives

*Two of the zoology credits transfer as free elective credit.

** substitutes for Math 112 and one credit transfers as free elective credit

substitutes for GEN 110

Credits completed at Medaille: (9)

Nine credits in 300/400 level LAS electives

General Electives

NCCC's health/PE (2), computer course (2), and one social science elective (3) and six free elective credits (6) transfer as general elective credit as do three credits of MAT/science and two credits of zoology.

Veterinary Technology Credit Summary

Core	18	9
Major	0	51
LAS	27	9
Free	17	0
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	62	69

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