

Mathematics A.A. Transfer Pathway

Inver Hills Community College

Requirements based on 2024-25 academic catalogue | Updated 7/29/25

This document is designed for Inver Hills students completing the Mathematics Transfer Pathway A.A. with the intent to transfer to Gustavus Adolphus College and complete the Mathematics B.A. degree. Students who do not intend to complete the 60-credit degree should contact Julia Macor at jmacor@gustavus.edu to plan course selections.

Below is the list of approved course work from the pathway that meets general education requirements or Mathematics major requirements. All courses must be completed with a C- or better to transfer.

Inver Hills course – required for major	Credits	Gustavus course
MATH 1133 Calculus I	5	MCS 121 Calculus I
MATH 1134 Calculus II	5	MCS 122 Calculus II
MATH 2219 Multivariable Calculus	5	MCS 222 Multivariable Calculus
Electives: Choose one or both courses MATH 2221 Introduction to Linear Algebra *MATH 2222 Introduction to Differential Equations	3-6	*MATH 2222 transfers in as MCS 253 (MATH 2221 does not transfer in for a specific math major requirement)
*Recommended for university	14	

Goal areas for MnTC		General education
Complete general education requirements: Goal area 1: ENGL 1108, 1111 and COMM 1100* Goal area 2: met with completion of MnTC Goal area 3: BIOL 1154 w/lab* and additional science course Goal area 4: Met in pathway Goal area 5: Choose 3 PSYC, HIST or POL or SOC course Goal area 6: Choose 3 ART, MUSC or THTR introduction course and literature Goal area 7-10: Choose one course from each	30	English elective and COM 00 or COM 117 BIOL 110 and 111 Science w/lab requirement (if 4+cr, otherwise elective cr) Meets Quantitative Reasoning requirement Meets Humanities or Human Behavior Social institutions Meets Fine Arts requirement (if 3 cr, or stack to 4 cr) Meets Humanities requirement/elective Meets general education requirements if MnTC is complete
Additional electives include: Health and Exercise courses	Varies	General electives apply towards a minimum of 128 credits for bachelor's degree
Total credits transferred for A.A degree	60	
*Recommended for Gustavus Adolphus College. Courses must be graded a C- or better to transfer.		

Remaining major courses for Mathematics B.A. degree	Credits
MCS 150 Discrete mathematics	4
MCS 221 Linear Algebra	4
Choose one: MCS 213 Intro to Algebra MCS 220 Intro to Analysis	4
MCS 142 Introduction to Statistics	4
MCS 177 Introduction to Computer Science	4
Choose one sequence: MCS 313 and MCS 314 Algebra MCS 331 and MCS 332 Analysis MCS 353 and MCS 357 Dynamical Systems	8
Electives: Choose two additional mathematics courses at 2XX or 3XX level	4
Total for major	32

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Remaining graduation requirements for B.A. degree	Credits
CHAL (Challenge Seminar)	4
SIGX (Signature Experience) for students starting at Gustavus Fall 2026 and later	4
Elective credits to reach a minimum of 128 credits	Varies
Total credits completed at college	68
Total credits for B.A. degree	128

Advising notes and application link:

Note that MCS 121, MCS 122, and MCS 222 are also required courses for a statistics major at Gustavus so students coming to Gustavus with a Math A.A. from Inver Hills CC are well positioned to continue with a statistics major at Gustavus if they choose. Also note that MATH 1103 (Introduction to Statistics) at Inver Hills CC would transfer in as credit for MCS 142 (Introduction to Statistics) at Gustavus, which would count towards both a statistics and a math majors at Gustavus.

**Additional courses may be required if MnTC was not completed prior to enrollment