Mathematics

AWARD
Mathematics Transfer Pathway A.A. Degree ............... 60 cr

CAMPUS CONTACT FOR THIS PROGRAM
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MATHEMATICS TRANSFER PATHWAY
A.A., 60 CREDITS

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<th>Component</th>
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<td>18-21 cr</td>
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<tr>
<td>Additional General Education</td>
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<tr>
<td>Health and Physical Education</td>
<td>2 cr</td>
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<td>General Electives</td>
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PURPOSE
The Mathematics Transfer Pathway A.A. offers students a powerful option: the opportunity to complete an Associate of Arts degree whose course credits will directly transfer to designated mathematics bachelor’s degree programs at Minnesota State universities. The entire curriculum has been carefully designed to guarantee junior-year status to students who have been admitted to one of the seven Minnesota State universities. There, students can complete their bachelor’s degree by earning 60 additional credits.

The Mathematics Pathway consists of the Required Pathway Curriculum, the Minnesota Transfer Curriculum (MnTC), the Health and Physical Fitness Requirement, and any electives to bring your credit total to 60 credits.

*Universities within the Minnesota State system include Bemidji State University; Metropolitan State University; Minnesota State University, Mankato; Minnesota State University, Moorhead; Southwest Minnesota State University; St. Cloud State University; and Winona State University.

TRANSFER PATHWAYS
With this transfer pathway, you will be able to transfer to the following majors at:

- Bemidji State University
  Mathematics - BS

- Metropolitan State University
  Industrial & Applied Mathematics – BS

- Minnesota State University, Mankato:
  Mathematics – BS

- Minnesota State University, Moorhead:
  Mathematics - BA, BS

- Southwest Minnesota State University:
  Mathematics – BA

- St. Cloud State University:
  Mathematics – BA

- Winona State University:
  Mathematics – BA
Mathematics Transfer Pathway Requirements 15 credits

The courses below must be completed successfully according to the university’s grade standards AND address the required outcomes in the transfer pathway for mathematics.

- MATH 1133 Calculus I .................................. 5
- MATH 1134 Calculus II ................................ 5
- MATH 2219 Multivariable Calculus ............... 5

Mathematics Electives 3-6 credits

Students may select from Math 2221 or Math 2222, or may elect to take both courses. Students should consult with the requirements of their transfer institution when making this decision.

- MATH 2221 Linear Algebra .............................. 3
- MATH 2222 Introduction to Differential Equations .......... 3

Additional General Education Requirements 35 credits

Goal 1 Communication ................................. 3 courses
- ENG 1108 Writing & Research Skills
- ENG 1111, 1114 OR 1130
- COMM 1100, 1110 OR 2230

Goal 2 Critical Thinking
- Satisfied by First Year Experience course or MnTC completion

Goal 3 Natural Science (1 course must include lab) .... 2 courses
- Goal 3a (Life Science) course
- Goal 3b (Physical Sciences) course

Goal 4 Mathematical/Logical Reasoning
- Goal 4 course - Satisfied by MATH1133

Goal 5 History/Social Sciences/Behavioral Sciences .... 3 courses
- Include courses from at least 2 disciplines
- Goal 5 course
- Goal 5 course
- Goal 5 course

Goal 6 Humanities/Fine Arts/Literature ............... 3 courses
- Goal 6a (Fine Arts) course
- Goal 6b (Humanities/Literature) course
- Any additional Goal 6 course

Goal 7 Human Diversity ................................ 1 course
- May be satisfied by utilizing course from Goals 1-6 above

Goal 8 Global Perspective .............................. 1 course
- May be satisfied by utilizing course from Goals 1-6 above

Goal 9 Ethical and Civic Responsibility .................. 1 course
- May be satisfied by utilizing course from Goals 1-6 above

Goal 10 People and the Environment ..................... 1 course
- May be satisfied by utilizing course from Goals 1-6 above

Health/Physical Education 2 credits

For a list of the requirements and courses, go to: inverhills.edu/MnTC

- Health ....................................................... 1
- Physical Education ...................................... 1

General Electives 2-5 credits

Any courses numbered 1000 level or higher from any discipline. This may include additional courses from the MnTC and/or Health & Physical Education.

TOTAL CREDITS 60
### FULL-TIME RECOMMENDED COURSE OF STUDY

Note: Not all courses will be available every semester. For a complete list of Minnesota Transfer Curriculum (MnTC) Goal Area course choices, please visit: [inverhills.edu/MnTC](http://inverhills.edu/MnTC)

**Semester 1** | 15-16 credits
---|---
MATH 1133  Calculus I* (Goal 4)  | 5
ENG 1108  Writing & Research Skills (Goal 1a) | 4
MnTC Goal 6a course   | 3
Health and PE   | 2
First Year Experience course (Goal 2) | 1-2

**Semester 2** | 15 credits
---|---
MATH 1134  Calculus II*  | 5
COMM 1100, 1110 OR 2230 (Goal 1c) | 3
MnTC Goal 3a with lab course | 4
MnTC Goal 5* course | 3

**Semester 3** | 15 credits
---|---
MATH 2219  Multivariable Calculus*  | 5
ENG 1114  The Research Paper OR ENG 1130  Writing & Research for the Professions (Goal 1b) | 2-3
MnTC Goal 3b course | 4
MnTC Goal 5* course | 3

**Semester 4** | 14-15 credits
---|---
MATH 2221  Linear Algebra AND/OR MATH 2222  Intro to Differential Equations* | 3-6
MnTC Goal 5* course | 3
MnTC Goal 6b* course | 3
MnTC Goal 6a OR 6b* course | 3
General elective | 0-3

**TOTAL CREDITS** | 60
---|---

* Course required for major
1 You are encouraged to take a course that also meets MnTC Goal Areas 7, 8, 9, or 10 to streamline your course choices.

### PART-TIME RECOMMENDED COURSE OF STUDY

Note: Not all courses will be available every semester. For a complete list of Minnesota Transfer Curriculum (MnTC) Goal Area course choices, please visit: [inverhills.edu/MnTC](http://inverhills.edu/MnTC)

**Semester 1** | 10-11 credits
---|---
MATH 1133  Calculus I* (Goal 4)  | 5
ENG 1108  Writing & Research Skills (Goal 1a) | 4
First Year Experience course (Goal 2) | 1-2

**Semester 2** | 8 credits
---|---
MATH 1133  Calculus I*  | 5
COMM 1100, 1110 OR 2230 (Goal 1c) | 3

**Semester 3** | 8 credits
---|---
MATH 2219  Multivariable Calculus*  | 5
MnTC Goal 6a course | 3

**Semester 4** | 8-9 credits
---|---
MATH 2221  Linear Algebra AND/OR MATH 2222  Intro to Differential Equations* | 3-6
Health and PE | 2
General elective | 0-3

**Semester 5** | 7 credits
---|---
MnTC Goal 5* course | 3
MnTC Goal 3a with lab course | 4

**Semester 6** | 6 credits
---|---
ENG 1114  The Research Paper OR ENG 1130  Writing and Research for the Professions (Goal 1b) | 3
MnTC Goal 5* course | 3

**Semester 7** | 7 credits
---|---
MnTC Goal 6b* course | 3
MnTC Goal 3b course | 4

**Semester 8** | 6 credits
---|---
MnTC Goal 6a OR 6b* course | 3
MnTC Goal 5* course | 4

**TOTAL CREDITS** | 60
---|---

* Course required for major
1 You are encouraged to take a course that also meets MnTC Goal Areas 7, 8, 9, or 10 to streamline your course choices.