

**Biology Transfer Pathway**
**Associate of Science | 60 credits**

Campus: Hibbing, Itasca, Mesabi Range-Virginia, Rainy River, and Vermilion

**First Year**

<b>FALL SEMESTER 2026 – 14 credits (minimum)*</b>	<b>Prerequisites</b>	<b>Credits</b>	<b>Hr Lc/Lb</b>
BIOL 1561 – General Biology of Cells (MnTC Goal 3)	(CLR)	4	(3/2)
COMM 1215 – Public Speaking (MnTC Goal 1)		3	
<u>OR</u> COMM 1220 – Interpersonal Communication (MnTC Goal 1)			
ENGL 1231 – College Composition 1 (MnTC Goal 1)		4	
MATH 1220 – College Algebra (MnTC Goal 4)	(MATH 0300)	3	
Additional Required MnTC Core Courses or Electives	(see catalog)	*	

<b>SPRING SEMESTER 2027 – 14 credits (minimum)*</b>	<b>Prerequisites</b>	<b>Credits</b>	<b>Hr Lc/Lb</b>
BIOL 1562 – General Biology of Organisms (MnTC Goals 3 & 10)	(BIOL1561)	4	(3/2)
ENGL 1232 – College Composition 2 (MnTC Goal 1)		3	
<u>OR</u> ENGL 1240 – Technical Report Writing (MnTC Goal 1)			
Additional MATH prefixed Goal 4 course (select based on transfer institution requirements)	(see catalog)	4	
Additional Required MnTC Core Courses or Electives	(see catalog)	3*	

**Second Year**

<b>FALL SEMESTER 2027 – 17 credits (minimum)*</b>	<b>Prerequisites</b>	<b>Credits</b>	<b>Hr Lc/Lb</b>
BIOL 2320 – Microbiology (MnTC Goal 3)	(BIOL 1561 OR BIOL 2371 OR BIOL 1200)	4	(3/2)
<u>OR</u> BIOL 2325 – Ecology** (MnTC Goal 3)	(BIOL 1562)		
CHEM 1521 – General Chemistry 1 (MnTC Goal 3)	(MATH 1220)	4	(3/2)
Additional Required MnTC Core Courses or Electives	(see catalog)	9*	

\*\*Currently available on-campus, Vermilion, Spring, odd years.

<b>SPRING SEMESTER 2028 – 15 credits (minimum)*</b>	<b>Prerequisites</b>	<b>Credits</b>	<b>Hr Lc/Lb</b>
BIOL 2330 – Genetics (MnTC Goal 3)	(BIOL 1561)	4	(3/2)
CHEM 1522 – General Chemistry 2 (MnTC Goal 3)	(CHEM 1521)	4	(3/2)
Additional Required MnTC Core Courses or Electives	(see catalog)	7*	

**Required MnTC Core Courses – can be taken any semester**

<b>Goal 5 History and the Social and Behavioral Sciences (3 credits required)</b>	<b>Prerequisites</b>	<b>Credits</b>	<b>Hr Lc/Lb</b>
Any MnTC Goal 5 Course	(see catalog)	3*	
<b>Goal 6 The Humanities and the Fine Arts (3 credits required)</b>	<b>Prerequisites</b>	<b>Credits</b>	<b>Hr Lc/Lb</b>
Any MnTC Goal 6 Course(s)	(see catalog)	3*	

\* Total credits each semester may vary depending upon courses chosen, but the degree requirement of 60 college credits earned must be met. Careful selection of MnTC courses will lead to the completion of the MnTC (see Transfer and Articulation Agreements section on next page). Students are also encouraged to take additional biology courses as their Additional Required MnTC Core Courses and Electives.

**Program Description**

The Biology Transfer Pathway AS offers students a powerful option: the opportunity to complete an Associate of Science degree with course credits that directly transfer to designated Biology bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so that students completing this pathway degree and transferring to one of the seven Minnesota State universities enter the university with junior-year status. All courses in the Transfer Pathway associate degree will directly transfer and apply to the designated bachelor's degree programs in a related field.

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.

### Program Learning Outcomes

Students of this program will:

1. Propose testable hypotheses and carry out experiments using standardized international systems of measurement (SCIENTIFIC METHOD).
2. Use the light microscope effectively (MICROSCOPY).
3. Analyze simple data sets using appropriate descriptive and inferential statistics (DATA INTERPRETATION & STATISTICAL ANALYSIS).
4. Communicate data and analysis in oral and written format (SCIENTIFIC COMMUNICATION).
5. Communicate and work productively with others in designing, conducting, and evaluating projects and experiments (COLLABORATION).
6. Use public literature databases to find appropriate published material, and read, understand, and evaluate the validity and importance of the scientific literature (SCIENTIFIC LITERATURE).
7. Analyze scientific studies in light of their ecological, social, economic, ethical, and cultural implications (SCIENCE & SOCIETY).
8. Utilize other disciplines as sources of context and skills to inform the learning and work they are engaged in (INTERDISCIPLINARY NATURE OF SCIENCE).

### Transfer and Articulation Agreements

As a Transfer Pathway, students in this program can transfer seamlessly to identified Biology bachelor's degree programs at each of the seven Minnesota State universities.

Additionally, MnTC Goals 1, 3, 4, and 10 are met with this program. With careful selection of the Additional Required MnTC Core Courses and Electives, the entire MnTC can be completed. Students should let their advisor know if this is something they wish to pursue. (Six additional Goal 5 credits, including courses from two different disciplines, are required, as are six additional Goal 6 credits, with at least one course from each of the two areas. Also needed are three credits each from Goals 7, 8, and 9. Note that some courses can apply toward up to two different Goal Areas.)

The full AA degree can be earned by completing this degree program, the MnTC, and at least one credit counting toward Physical Activity/Competitive Sports and two credits toward Wellness/Health.

### Program Faculty Contact

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