

### Program Description

The Biology Transfer Pathway Associate of Science (AS) degree program 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.

### Minnesota State Universities - Designated Degrees

- Bemidji State University: Biology BA, Biology BS
- Metropolitan State University: Biology BA
- Minnesota State University, Mankato: Biology BS
- Minnesota State University, Moorhead: Biology BA
- Southwest Minnesota State University: Biology BA
- St. Cloud State University: Life Sciences BES, Biology: Biodiversity, Ecology, and Evolution BEES
- Winona State University: Biology BS (Allied Health, Cell & Molecular, Ecology, Environmental Science)

### Program Goals

By completing this program, students will achieve the following learning goals:

1. Demonstrate comprehension of biological systems at all levels of biological organization;
2. Apply the scientific method within course investigations;
3. Communicate biological data, analyses, and interpretations orally and/or in writing; and
4. Demonstrate application of critical thinking in classroom, field, and laboratory studies.

### Required Courses: 60 Total Credits

- |                                     |                                |   |
|-------------------------------------|--------------------------------|---|
| <input type="checkbox"/> BIOL 1106  | Principles of Biology I.....   | 4 |
| <input type="checkbox"/> BIOL 1107♦ | Principles of Biology II ..... | 4 |
| <input type="checkbox"/> BIOL 2202♦ | Genetics.....                  | 4 |

#### Choose one of the Restricted Biology Electives:

- |                                     |                      |   |
|-------------------------------------|----------------------|---|
| <input type="checkbox"/> BIOL 2201  | Microbiology .....   | 4 |
| <input type="checkbox"/> BIOL 2208♦ | Cell Biology.....    | 4 |
| <input type="checkbox"/> BIOL 2209♦ | General Ecology..... | 4 |

#### Choose at least 14 credits from additional Math and Science electives (check with receiving institution to determine best elective choices for desired program):

- |                                      |                                    |   |
|--------------------------------------|------------------------------------|---|
| <input type="checkbox"/> BIOL 1103   | Environmental Science Lecture..... | 3 |
| <input type="checkbox"/> BIOL 1133   | Environmental Science Lab.....     | 1 |
| <input type="checkbox"/> BIOL 2201♦  | Microbiology .....                 | 4 |
| <input type="checkbox"/> BIOL 2206♦  | Animal Biology.....                | 4 |
| <input type="checkbox"/> BIOL 2207♦  | Plant Biology .....                | 4 |
| <input type="checkbox"/> BIOL 2208♦  | Cell Biology.....                  | 4 |
| <input type="checkbox"/> BIOL 2209♦  | General Ecology.....               | 4 |
| <input type="checkbox"/> BIOL 2230♦^ | Directed Research in Biology ..... | 2 |
| <input type="checkbox"/> CHEM 2061♦  | Organic Chemistry I.....           | 5 |
| <input type="checkbox"/> CHEM 2062♦  | Organic Chemistry II .....         | 5 |
| <input type="checkbox"/> MATH 1114♦  | Introduction to Statistics.....    | 4 |
| <input type="checkbox"/> MATH 1400♦  | Calculus I .....                   | 5 |
| <input type="checkbox"/> MATH 1401♦  | Calculus II .....                  | 5 |
| <input type="checkbox"/> PHYS 1317♦  | General Physics I .....            | 5 |
| <input type="checkbox"/> PHYS 1318♦  | General Physics II.....            | 5 |
| <input type="checkbox"/> PHYS 1327♦  | College Physics I.....             | 6 |
| <input type="checkbox"/> PHYS 1328♦  | College Physics II .....           | 6 |

Complete at least 30 credits in courses from the Minnesota Transfer Curriculum (MnTC), including all courses listed. You must complete at least one course in six of the ten goal areas. One course may satisfy more than one goal area, but the course credits may be counted only once.

- |   |     |
|---|-----|
| <input type="checkbox"/> 1. Communication   |     |
| <input type="checkbox"/> ENGL 1120♦ <b>OR</b> ENGL 1121♦ .....                    | 4   |
| <input type="checkbox"/> CMST 1110 <b>OR</b> CMST 2215 <b>OR</b> CMST 2220 .....  | 3   |
| <input type="checkbox"/> 2. Critical Thinking ( <i>met by ENGL 1120 or 1121</i> ) |     |
| <input type="checkbox"/> 3. Natural Science                                       |     |
| <input type="checkbox"/> CHEM 1061♦ .....   | 4   |
| <input type="checkbox"/> CHEM 1062♦ .....   | 4   |
| <input type="checkbox"/> 4. Mathematical/Logical Reasoning                        |     |
| <input type="checkbox"/> MATH 1200 (or higher)♦ .....                             | 3-5 |
| <input type="checkbox"/> Choose MATH course (higher than MATH 1200)♦ .....        | 4-5 |
| <input type="checkbox"/> 5. History/Social/Behavioral Sciences                    |     |
| <input type="checkbox"/> Choose course(s) totaling 3 credits .....                | 3   |
| <input type="checkbox"/> 6. Humanities/Fine Arts                                  |     |
| <input type="checkbox"/> Choose course(s) totaling 3 credits .....                | 3   |
| <input type="checkbox"/> 7. Human Diversity                                       |     |
| <input type="checkbox"/> 8. Global Perspective                                    |     |
| <input type="checkbox"/> 9. Ethical/Civic Responsibility                          |     |
| <input type="checkbox"/> 10. People and the Environment                           |     |

♦ Course has prerequisite - see course schedule or catalog description.

^ Course requires Instructor permission.

NOTE: You are encouraged to contact an academic advisor at 763-433-1230 for course planning assistance and information about transfer credit evaluation and transfer options.

**Biology Transfer Pathway**

Associate of Science (AS) Degree

**Pathway Plan**

The following two-year Pathway Plan is suggested for full-time students. Part-time students will need more time to complete this pathway. For assistance with pathway planning, students should schedule an appointment with an academic advisor. See also the college catalog Appendix for course offering information.

**Semester One (14-15 Credits)**

- ☐ BIOL 1106 Principles of Biology I..... 4
- ☐ CHEM 1061♦ Principles of Chemistry I..... 4
- ☐ MATH 1200♦ College Algebra (or higher)..... 3-5
- ☐ General Ed/MnTC ..... 3-4

**Semester Two (14-15 Credits)**

- ☐ BIOL 1107♦ Principles of Biology II ..... 4
- ☐ CHEM 1062♦ Principles of Chemistry II..... 4
- ☐ MATH Elective ..... 3-5
- ☐ General Ed/MnTC ..... 3-4

**Semester Three (15-16 Credits)**

- ☐ BIOL 2202♦ Genetics..... 4
- ☐ Restricted Biology Elective **OR** Additional Math/Science Elective..4-6
- ☐ General Ed/MnTC ..... 7-8

**Semester Four (15-16 Credits)**

- ☐ Restricted Biology Elective **OR** Additional Math/Science Elective..4-6
- ☐ Additional Math/Science Elective ..... 4-6
- ☐ General Ed/MnTC ..... 7-8

**Degree Specifics**

- A minimum of 60 semester credits in courses numbered 1000 or above.
- A minimum cumulative grade point average (GPA) of 2.0 in courses numbered 1000 or above at ARCC.
- Some students may need preparatory courses in the areas of English, mathematics or reading. Courses numbered below 1000 will not apply toward this degree.
- Satisfy residency requirements.
- A minimum grade of C must be earned in all program requirements.
- Completion of specific degree requirements.
- Each state university has specific program requirements for completion. Please speak with your advisor about requirements at receiving institutions.
- To receive your diploma, you must apply to graduate.
- The requirements of this program are subject to change without notice.

♦ *Course has prerequisite - see course schedule or catalog description.*

^ *Course requires Instructor permission.*

NOTE: You are encouraged to contact an academic advisor at 763-433-1230 for course planning assistance and information about transfer credit evaluation and transfer options.