

MINNESOTA STATE COLLEGES AND  
UNIVERSITIES\*  
ARTICULATION AGREEMENT  
BETWEEN

MINNESOTA WEST COMMUNITY AND  
TECHNICAL COLLEGE  
AND  
MINNESOTA STATE UNIVERSITY MOORHEAD

\*The Board of Trustees of the Minnesota State Colleges and Universities is authorized by Minnesota Statutes, Chapter 136F to enter into Agreements and has delegated this authority to colleges and universities.

This Agreement is entered into between MINNESOTA WEST COMMUNITY AND TECHNICAL COLLEGE (hereinafter sending institution), and MINNESOTA STATE UNIVERSITY MOORHEAD (hereinafter receiving institution). This Agreement and any amendments and supplements, shall be interpreted pursuant to the laws of the State of Minnesota.

The sending institution has established the following programs: (hereinafter sending programs):

AUTOMOTIVE TECHNOLOGY AAS 47.060400  
BIOFUELS TECHNOLOGY AAS 01.040100  
COMPUTER ENGINEERING TECHNOLOGY AAS 15.120100  
COMPUTER NETWORKING SPECIALIST AAS 11.090101  
COMPUTER SUPPORT TECHNOLOGY AAS 15.120200  
DIESEL TECHNOLOGY AAS 47.060502  
ELECTRIC UTILITY SUBSTATION TECHNOLOGY AAS 46.030100  
ELECTRICIAN AAS 46.030200  
ENERGY TECHNICAL SPECIALIST AAS 15.050300  
FLUID POWER TECHNOLOGY AAS 15.110300  
INFORMATION SECURITY AND ASSURANCE AAS 11.100300  
INDUSTRIAL TECHNOLOGY AAS  
POWERLINE TECHNOLOGY AAS 46.030300  
RADIOLOGIC TGECHNOLOGY AAS 51.091100  
TELECOMMUNICATIONS AAS  
WIND ENERGY TECHNOLOGY AAS 46.039900

and the receiving institution has established an OPERATIONS MANAGEMENT BS (hereinafter receiving program), and will facilitate credit transfer and provide a smooth transition from one related program to another. It is mutually agreed:

**Admission and Graduation Requirements**

- A. The receiving institution's admission and program admission requirements apply to both direct entry students and to students who transfer under this agreement.
- B. Students must fulfill the graduation requirements at both institutions.
- C. Students must complete the entire sending program and meet the receiving institution's admission requirements for the agreement to apply.

**Transfer of Credits**

- A. The receiving institution will accept 50 - 69 credits from the sending program. A total of 57 -74 credits remain to complete the receiving program.

- B. Courses will transfer as described in the attached Program Articulation Table. For system institutions, once the courses are encoded, they will transfer as described in the Transferology Audit.

**Implementation and Review**

- A. The Chief Academic Officers or designees of the parties to this agreement will implement the terms of this agreement, including identifying and incorporating any changes into subsequent agreements, assuring compliance with system policy, procedure and guidelines, and conducting a periodic review of this agreement.
- B. This Articulation Agreement is effective on 04/01/2016 and shall remain in effect until the end date of 04/01/2021 or for five years, whichever occurs first, unless terminated or amended by either party with 90 days prior written notice.
- C. The college and university shall work with students to resolve the transfer of courses should changes to either program occur while the agreement is in effect.
- D. This Articulation Agreement will be reviewed by both parties beginning 10/01/2020 (within six months of the end date).
- E. When a student notifies the receiving institution of their intent to follow this agreement, the receiving institution will encode course waivers and substitutions.

<b>PROGRAM ARTICULATION TABLE</b>		
	<b>College (sending)</b>	<b>University (receiving)</b>
<b>Institution</b>	MINNESOTA WEST COMMUNITY AND TECHNICAL COLLEGE	MINNESOTA STATE UNIVERSITY MOORHEAD
<b>Program name</b>	AUTOMOTIVE TECHNOLOGY AAS, 72 cr, 47.060400 BIOFUELS TECHNOLOGY AAS, 60 cr, 01.040100 COMPUTER ENGINEERING TECHNOLOGY AAS, 60 cr, 15.120100 COMPUTER NETWORKING SPECIALIST AAS, 60 cr, 11.090101 COMPUTER SUPPORT TECHNOLOGY AAS, 60 cr, 15.120200 DIESEL TECHNOLOGY AAS, 72 cr, 47.060502 ELECTRIC UTILITY SUBSTATION TECHNOLOGY AAS, 60 cr, 46.030100 ELECTRICIAN AAS, 81 cr, 46.030200 ENERGY TECHNICAL SPECIALIST AAS, 60 cr, 15.050300 FLUID POWER TECHNOLOGY AAS, 72 cr, 15.110300 INFORMATION SECURITY AND	OPERATIONS MANAGEMENT

	ASSURANCE AAS, 60 cr, 11.100300 INDUSTRIAL TECHNOLOGY AAS, 60 cr, POWERLINE TECHNOLOGY AAS, 60 cr, 46.030300 RADIOLOGIC TGECHNOLOGY AAS, 84 cr, 51.091100 TELECOMMUNICATIONS AAS, 60 cr, WIND ENERGY TECHNOLOGY AAS, 60 cr, 46.039900	
Award Type (e.g., AS)	AAS	BS
Credit Length	See above.	120
CIP code (6-digit)	See above.	52.020500
Describe program admission requirements (if any)		AAS with 30 or more technical credits, as prescribed by program's accrediting board, The Association of Technology, Management, and Applied Engineering (ATMAE).

### Instructions

- List all required courses in both academic programs.
- MnTC goal areas transfer to the receiving institution according to the goal areas designated by the sending institution.
- Do not indicate a goal area for general education courses that are not part of the MnTC.
- For restricted or unrestricted electives, list number of credits.
- Credits applied: the receiving institution course credit amount may be more or less than the sending institution credit amount. Enter the number of credits that the receiving institution will apply toward degree completion.
- Show equivalent university-college courses on the same row to ensure accurate DARS encoding.
- Equiv/Sub/Wav column: If a course is to be encoded as equivalent, enter Equiv. If a course is to be accepted by the university as a "substitution" only for the purposes of this agreement, enter Sub. If a course requirement is waived by the receiving institution, enter Wav. If a course is to be accepted by the university as a MnTC goal area, restricted elective or unrestricted elective, leave the cell blank.

(To add rows, place cursor outside of the end of a row and press enter.)

### SECTION A - Minnesota Transfer Curriculum-General Education

College (sending)			University (receiving)			
course prefix, number and name	Goal(s) <sup>1</sup>	Credits	course prefix, number and name	Goal(s) <sup>1</sup>	Credits Applied	Equiv Sub Wav
Minnesota Transfer Curriculum-General Education						
General Education Requirements						
Students must select from at least three (3) of the (10) goal areas of the MNTC						
AUTOMOTIVE TECHNOLOGY AAS (15 cr)						
BIOFUELS TECHNOLOGY AAS (16 cr)						
COMPUTER ENGINEERING TECHNOLOGY AAS (15 cr)						

<sup>1</sup> MnTC goal areas transfer to the receiving MnSCU college/university according to the goal areas designated by the sending college/university

COMPUTER NETWORKING SPECIALIST AAS (15 cr)					
COMPUTER SUPPORT TECHNOLOGY AAS (15 cr)		15 - 21	MnTC General Education Courses	1 - 10	15 - 21
DIESEL TECHNOLOGY AAS (15 cr)					
ELECTRIC UTILITY SUBSTATION TECHNOLOGY AAS (16 cr)					
ELECTRICIAN AAS (15 cr)					
ENERGY TECHNICAL SPECIALIST AAS (15 cr)					
FLUID POWER TECHNOLOGY AAS (18 cr)					
INFORMATION SECURITY AND ASSURANCE AAS (15 cr)					
INDUSTRIAL TECHNOLOGY AAS (16 cr)					
POWERLINE TECHNOLOGY AAS (15 cr)					
RADIOLOGIC TGECHNOLOGY AAS (20 - 21 cr)					
TELECOMMUNICATIONS AAS (15 cr)					
WIND ENERGY TECHNOLOGY AAS (15 cr)					
<b>MnTC/General Education Total</b>		15 - 21			
<p><b>Special Notes:</b> MSUM will accept other MnTC credits and will transfer the same number of credits and goal areas as MN West awards. Students should work with their advisor at MN West and MSUM to choose the best general education courses to take.</p> <p>ENGL 1101 Composition I (3 cr) is equivalent to MSUM ENGL 101 English Composition I, Goal Area 1B.</p> <p>SPCH 1101 Intro to Speech (3 cr) is equivalent to MSUM COMM 100 Speech Communication, Goal Area 1A.</p> <p>BIOL 1110 Principles of Biology (4 cr) transfers as Goal 3L.</p> <p>BIOL 1115 Human Biology (3 cr) is equivalent to MSUM BIOL 104 Human Biology , Goal 3.</p> <p>NSCI 1100 Issues in the Environment (3 cr) transfers as Goal Areas 8, 10.</p> <p>PHYS 1100 Survey of Physics (3 cr) transfers as Goal 3L.</p> <p>MATH 1100 Integrated Math doesn't transfer.</p> <p>MATH 1107 Concepts in Math (3 cr) is equivalent to MSUM MATH 105 Contemporary Mathematics, Goal 4.</p> <p>MATH 1111 College Algebra (3 cr) is equivalent to MSUM MATH 127 College Algebra, Goal 4.</p> <p>PSCI 2210 Environmental Politics transfers as Goal Area 5, 10.</p> <p>PSYC 1150 Developmental Psychology (3 cr) transfers as Goal Areas 5, 7.</p> <p>SOC 1101 Intro to Sociology (3 cr) is equivalent to MSUM SOC 110 Intro to Sociology, Goal Area 5.</p>					
<b>SECTION B - Major, Emphasis, Restricted and Unrestricted Electives or Other</b>					
(pre-requisite courses, required core courses, required courses in an emphasis, or electives (restricted or general) within the major). <u>Restricted electives (in Major)</u> fulfill a specific requirement within a major. Example A: "Chose two of the following three courses;" Example B: A Biology degree may require 40 science credits (20 credits of required courses + 20 credits of listed related courses, such as botany, genetics, sociobiology, etc. which students can select).					
<b>Major, Emphasis, Restricted, Unrestricted Electives or Other Courses</b>					
Technical credits as prescribed in program					
AUTOMOTIVE TECHNOLOGY AAS (57 cr)**					
BIOFUELS TECHNOLOGY AAS (41 - 44 cr)					

COMPUTER ENGINEERING TECHNOLOGY AAS (30 - 42 cr) COMPUTER NETWORKING SPECIALIST AAS (35 - 42 cr) COMPUTER SUPPORT TECHNOLOGY AAS (33 - 44 cr) DIESEL TECHNOLOGY AAS (57 cr) ELECTRIC UTILITY SUBSTATION TECHNOLOGY AAS (41 cr) ELECTRICIAN AAS (65 cr) ENERGY TECHNICAL SPECIALIST AAS (45 cr) FLUID POWER TECHNOLOGY AAS (49 - 54 cr) INFORMATION SECURITY AND ASSURANCE AAS (31 - 42 cr) INDUSTRIAL TECHNOLOGY AAS (42 cr) POWERLINE TECHNOLOGY AAS (45 cr) RADIOLOGIC TGECHNOLOGY AAS (61 cr) TELECOMMUNICATIONS AAS (45 cr) WIND ENERGY TECHNOLOGY AAS (41 cr)		Technical Credits as prescribed in the program  Additional credits up to 18 will be applied as unrestricted elective credits*	30  Up to 18	
ACCT 1120 Spreadsheets (2), ACCT 1122 Database Concepts (2) ADSA 1100 College Keyboarding I (3), ADSA 1122 Word Processing I (2), ADSA 1190 Presentations Graphics (2), BIOL 2245 Medical Terminology (2), CMAE 1514 Safety Awareness (2), BUS courses, CSCI 1102 Intro to Microcomputers (3), CST 1180 Data Security Awareness (1), EMS 1112 AHA CPR Healthcare Provider (1), HC 1290 Healthcare & Society (1).		Not Applicable	0	
<b>Major, Emphasis, Unrestricted Electives Total</b>	44 - 66	<b>Total College Credits Applied (sum of sections A and B)</b>	50 - 69	

**Special Notes:** \* No more than 48 technical credits will be applied as elective credit. If the program doesn't have that many technical credits, that lower number of credits will be applied. \*\* No more than 4 credits from an internship will apply toward technical credits.

### SECTION C - Remaining University (receiving) Requirements

course prefix, number and name	Credits
Remaining MnTC/ LASC Goal Requirements*	21 - 27
ACCT 230 Principles of Accounting I	3
MGMT 360 Principles of Management	3
OM 380 Methods Improvement	3
OM 393 Occupational Safety & Health	3
OM 482 Quality Planning & Implementation	3
OM 394 Computer Applications in Business	3
OM 483 Cost Analysis	3
OM 485 Production & Inventory Management	3
PMGT 300 Project Management & Scheduling	3
PMGT 385 Process Leadership	3
ENGL 387 Technical Report Writing	3
OM 469 Internship	3
Electives if needed **	0 - 11
<b>Total Remaining University Credits<sup>2</sup></b>	<b>57 - 74</b>

**Special Notes:** \*The General Education courses listed below are required for the Operations Management BS degree. Equivalent courses can be taken at MN West (see Section A Notes).

**Students only need to select two science courses (one course must include a lab and the other must include a lab like experience), one course must be from Chemistry and the other from Physics.**

Choose one Chemistry course from the following:

CHEM 102 Environmental Chemistry (3) OR

CHEM 105 Crime Scene Science (3) OR

CHEM 110 Fundamentals of Chemistry (3) **and**

CHEM 110L Fundamentals of Chemistry Lab (1) OR

CHEM 150 General Chemistry I (3) **and**

CHEM 150L General Chemistry Laboratory I (1) OR

CHEM 304 The Environment and You (3)

PHYS 160 College Physics I (3) **and**

PHYS 160L College Physics I Lab (1)

ECON 202 Principles of Economics I: Micro (3)

MATH 127 College Algebra (3)

MATH 234 Introduction to Probability and Statistics (3)

\*\*Number of elective credits required to bring the total of credits earned to 120 varies.

### SECTION D - Summary of Total Program Credits

College (sending) Credits		University (receiving) Requirements	
MnTC/General Education	15 - 24		
Major, Emphasis, Unrestricted Electives or Other	40 - 65		
<b>Total College Credits</b>	60 - 84	<b>Total College Credits Applied</b>	50- 69
		<b>Remaining credit to be taken at the university (receiving institution)</b>	57 - 74
		<b>Total Program Credits</b>	120 - 126

<sup>2</sup> At least 40 of the required credits for the baccalaureate degree shall be at the upper-division level. If a lower division course is shown as equivalent to an upper division course, check with the university to determine if it will count toward the 40 required credits of upper division.

College	Name	Signature	Date
Chief Academic Officer			
<i>Provost</i>	<i>Jeffrey D Williamson</i>	<i>[Signature]</i>	<i>4/5/2016</i>
Title			
University	Name	Signature	Date
Department Chairperson	Pam McGee	<i>pmcgee</i>	<i>4/7/16</i>
Academic Dean	Dr. Marsha Weber	<i>Marsha Weber</i>	<i>4-10-16</i>
Chief Academic Officer	Dr. Joseph Bessie	<i>Joe Bessie</i>	<i>4/12/16</i>
DARS Encoder	<i>Jolene Richardson</i>	<i>Jolene Richardson</i>	<i>2/13/17</i>
Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.			