

**MINNESOTA STATE COLLEGES AND
UNIVERSITIES*
ARTICULATION AGREEMENT
BETWEEN**

**Lakes Area Technical Institute
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 **Lakes Area Technical Institute** (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

Automotive Technology AAS, 71 credits 47.0604

Aviation Maintenance Technology AAS, 90.5 credits 47.0608

Building Trades Technology AAS, 72 credits 46.0415

Computer Information Systems-Programming Specialist AAS, 70 credits 11.0701

Computer Information Systems-Networking & Cyber Security Specialist AAS, 72 credits 11.0701

Computer Information Systems- Graphic Design & Digital Communications Specialist AAS, 70 credits 11.0701

Diesel Technology AAS, 70.5 credits 47.00605

Diesel Technology for Automotive Grads AAS, 70.5 credits 47.00605

Electronic Systems Technology AAS, 72 credits 15.0303

Energy Operations AAS, 75.5 credits 15.0613

Energy Technology AAS, 73.5 credits 15.1001

Environmental Technology AAS, 69 credits 03.0104

Heavy Equipment Operator AAS, 72.5 credits

High Performance Engine Machinist AAS, 72.5 credits

Precision Machining AAS, 67 credits 48.0501

Robotics AAS, 72 credits 15.0405

Welding Technology AAS, 72 credits 48.0508

(hereinafter sending programs), 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 **48 -67.5 credits** from the sending program. A total of **53 - 81 credits** remain to complete the receiving program.

April, 2018

- 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 **01/01/2019** and shall remain in effect until the end date of **01/01/2024** 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 **07/01/2023** (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.

PROGRAM ARTICULATION TABLE		
	College (sending)	University (receiving)
Institution	Lakes Area Technical Institute	Minnesota State University Moorhead
Program name/ Award Type (e.g., AS)/ CIP code (8-digit)	Automotive Technology AAS, 71 credits, 47.0604 Aviation Maintenance Technology AAS, 90.5 credits, 47.0608 Building Trades Technology AAS, 72 credits, 46.0415 Computer Information Systems-Programming Specialist AAS, 70 credits 11.0701 Computer Information Systems-Networking & Cyber Security Specialist AAS, 72 credits 11.0701 Computer Information Systems- Graphic Design & Digital Communications Specialist AAS, 70 credits 11.0701 Diesel Technology AAS, 70.5 credits, 47.00605 Diesel Technology for Automotive Grads AAS, 70.5 credits 47.00605 Electronic Systems Technology AAS, 72 credits, 15.0303 Energy Operations AAS, 75.5 credits, 15.0613 Energy Technology AAS, 73.5 credits, 15.1001 Environmental Technology AAS, 69 credits, 03.0104 Heavy Equipment Operator AAS, 72.5 credits High Performance Engine Machinist AAS, 72.5 credits Precision Machining AAS, 67 credits, 48.0501 Robotics AAS, 72 credits, 15.0405 Welding Technology AAS, 72 credits, 48.0508	Operations Management, BS, 120 credits, 52.020500

Aware Type (e.g., AS)	AAS	BS
Credit Length	66 – 90.5	120
CIP code (6-digit)	See list above.	52.020500
Describe program admission requirements (if any)		AAS, AS, or Diploma with 30+ prescribed 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)			MSUM University (receiving)			
course prefix, number and name (The following courses are requirements of the BS degree, but may not be required of the diploma or associate's programs. Students are encouraged to take these courses within their AS, AAS, or Diploma program.)	Goal(s) ¹	Credits	course prefix, number and name	Goal(s) ¹	Credits Applied	Equiv Sub Wav
Minnesota Transfer Curriculum-General Education						
General Education Requirement*						
Automotive Technology AAS, 0 cr						
Aviation Maintenance Technology AAS, 0 – 15 cr						
Building Trades Technology AAS, 0 – 12 cr						
Computer Information Systems-Programming Specialist AAS, 0 – 15 cr						
Computer Information Systems-Networking & Cyber Security Specialist AAS, 0 – 15 cr	1-10	12+	MnTC General Education courses	1-10	12+	Equiv Or Sub
Computer Information Systems-Graphic Design & Digital Communications Specialist AAS, 0 – 15 cr						
Diesel Technology AAS, 0 – 12 cr						

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

Diesel Technology for Automotive Grads AAS, 0 – 12 cr Electronic Systems Technology AAS, 0 – 12 cr Energy Operations AAS, 0 – 12 cr Energy Technology AAS, 0 – 12 cr Environmental Technology AAS, 8 – 23 cr Heavy Equipment Operator AAS, 0 – 12 cr High Performance Engine Machinist, AAS 0 – 12 cr Precision Machining AAS, 0 - 12 cr Robotics AAS, 0 – 12 cr Welding Technology AAS, 3 – 9 cr					
COMM 101 Communications & Career Strategies, ECON 105 Leadership in the Global Workplace, MATH 100 Applied General Math, MATH 101 Intermediate Algebra, MATH 117 Foundations of Trigonometry, PSYC 100 Psychology of Human Relations		Varies	Not Applicable		0
MnTC/General Education Total		0 - 23			
<p>Special Notes, if any:*Students should work with their advisor at LATI and also MSU Moorhead to choose best general education courses to take at LATI. Not all general education courses from LATI transfer to MSUM as part of their general education curriculum. Courses with a more applied focus may not transfer.</p> <p>** If students takes equivalencies of these courses at Lakes Area Technical Institute, fewer MNTE credits will be required in MSU – Moorhead's program:</p> <p>CHEM 106/106L – Inorganic Chemistry is equivalent to MSUM CHEM 110 and 110L Fundamentals of Chemistry (Goal 3) ECON 201 - Principles of Microeconomics is equivalent to MSUM ECON 202 Principles of Economics I: Micro (Goal 5) ECON 202 – Principles of Macroeconomics II is equivalent to MSUM ECON 204 Principles of Economics I: Macro (Goal 5) ENGL 101 – Composition is equivalent to MSUM ENGL 101 English Composition I (Goal 1) MATH 102 - College Algebra is equivalent to MSUM MATH 127 College Algebra (Goal 4) MICRO 231 – General Microbiology is equivalent to MSUM BIOL 236/ 236L Intro to Microbiology (Goal 3) PSYC 101 – General Psychology is equivalent to MSUM PSY 113 General Psychology (Goal 5) SOC 100 – Introduction to Sociology is Equivalent to MSUM SOC 110 Intro to Sociology (Goal 5)</p>					
SECTION B - Major, Emphasis, Restricted and Unrestricted Electives or Other					
<p>(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).</p>					
Major, Emphasis, Restricted, Unrestricted Electives or Other Courses					
General Education Requirement* Automotive Technology AAS, 59 cr Aviation Maintenance Technology AAS, 74 cr Building Trades Technology AAS, 59.5 cr Computer Information Systems-Programming Specialist AAS, 55 cr Computer Information Systems-Networking & Cyber Security Specialist AAS, 57 cr Computer Information Systems- Graphic Design & Digital Communications Specialist AAS, 55 cr Diesel Technology AAS, 58 cr			Technical Credits as prescribed in the program Additional credits up to 18 will be applied as unrestricted elective credits	30 Up to 18	

Diesel Technology for Automotive Grads AAS, 57 cr Electronic Systems Technology AAS, 60 cr Energy Operations AAS, 61.5 cr Energy Technology AAS, 59.5 cr Environmental Technology AAS, 44.5 cr Heavy Equipment Operator AAS, 52.5 cr High Performance Engine Machinist, AAS 59.5 cr Precision Machining AAS, 55 cr Robotics AAS, 60 cr Welding Technology AAS, 59 cr				
AED, CSC, CSS, CIS, and HAZ Courses	varies	Not applicable	0	
Major, Emphasis, Unrestricted Electives Total	44.5 - 74	Total College Credits Applied (sum of sections A and B)	48 - 67.5	
Special Notes, if any: *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.				

SECTION C - Remaining University (receiving) Requirements

course prefix, number and name	Credits
*Remaining MNTC/ LASC (Gen Ed) goal requirements	10 - 39
MATH 234 Intro to Probability & Statistics (Goal 4)	3
ACCT 230 Principles of Accounting I	3
ENGL 387 Technical Report Writing	3
MGMT 260 Principles of Management	3
OM 380 Methods Improvement	3
OM 393 Occupational Safety & Health	3
OM 395 Computer Applications for Technologists	3
OM 482 Quality Planning and Implementation	3
OM 483 Cost Analysis	3
OM 485 Production & Inventory Management	3
PMGT 300 Project Management & Scheduling	3
PMGT 385 Process Leadership (3)	3
OM 469 Internship (3-12)	3
Electives (Credit amount needed to bring total to 120 for BS)	0 - 1
**MATH 127 College Algebra (Goal 4)	(3)
**ECON 202 Principles of Economics I: Micro (Goal 5)	(3)
Total Remaining University Credits	50 - 78

Special Notes, if any:

***The General Education courses listed below are required for the Operations Management BS degree. Equivalent courses can be taken at Lakes Area Technical Institute (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).

- 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)

MATH 234 Introduction to Probability and Statistics (3)
Other suitable course exceptions to be handled by the OM faculty after enrollment
 ** These courses are required if the equivalent wasn't taken at LATI.

SECTION D - Summary of Total Program Credits

College (sending) Credits		University (receiving) Requirements	
MnTC/General Education	0 - 23		
Major, Emphasis, Unrestricted Electives or Other	44.5 - 74		
Total College Credits	67 - 90.5	Total College Credits Applied	48 - 67.5
		Remaining credit to be taken at the university (receiving institution)	50 - 71
		Total Program Credits	120.5 - 127.5

Special Notes, if any:

² 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
Dean of Academics	Kim Bellum	<i>Kim Bellum</i>	12/10/18
President	Michael Cartney	<i>Michael Cartney</i>	12/10/18
University	Name	Signature	Date
Department Chairperson	Pam McGee	<i>Pam McGee</i>	12/12/18
Academic Dean	Denise Gorsline	<i>Denise Gorsline</i>	12.12.18
Chief Academic Officer	Marsha Weber	<i>Marsha Weber</i>	12-12-18
DARS Encoder	Jolene Richardson	<i>Jolene Richardson</i>	12/13/18

Date when equivalencies were encoded in DARS by the receiving MnSCU institution: