MINNESOTA STATE COLLEGES AND UNIVERSITIES* ARTICULATION AGREEMENT BETWEEN	LAKE SUPERIOR 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 LAKE SUPERIOR 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:

Auto Service Technology AAS, 72 credits 47.0604

Aviation Maintenance Technology AAS, 103 credits 47.0607

Civil Engineering Technology AAS, 60 credits 15.0201

Commercial and Residential Wiring AAS, 82 credits 46.0302

Computer and Web Programming AAS, 72 credits 11.0801

Electronic Engineering Technology: Industrial Controls AAS, 72 credits 15.0303

Engineering CAD Technology AAS, 67 credits 15.1302

Machine Technology CNC Programmer AAS, 71 credits 48.0510

Network Administration & Cybersecurity AAS, 72 credits 11.1001

Radiologic Technology AAS, 78 credits 51.0911

(hereinafter sending program), 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 60 - 64 credits from the sending program. A total of 60 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 05/01/2018 and shall remain in effect until the end date of 05/012023 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 11/1/2022 (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	LAKE SUPERIOR COLLEGE	MINNESOTA STATE UNIVERSITY MOORHEAD
Program name	Auto Service Technology AAS, 72 cr Aviation Maintenance Technology AAS, 103 cr Civil Engineering Technology AAS, 60 cr 15.020101 Commercial and Residential Wiring AAS, 82 cr 46.030201 Computer and Web Programming AAS, 72 cr 11.080101 Electronic Engineering Technology: Industrial Controls AAS, 72 cr 15.030305 Engineering CAD Technology AAS, 67 cr 15.130202 MachineTechnology CNC Programmer AAS, 71 cr 48.051004 Network Administration & Cybersecurity AAS, 72 cr 11.100100 Radiologic Technology AAS, 78 cr 51.091100	Operations Management, BS, 52.020500
Award Type (e.g., AS)	AAS	BS
Credit Length	See above	120 credits
CIP code (6-digit)	See above	52.020500
Describe program admission requirements (if any)		AAS with 30+ prescribed technical credits, as prescribed by program's accrediting board, The Association of Technology, Management, and Applied Engineering (ATMAE)

April, 2018

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)[1]	Credits	course prefix, number and name	Goal(s)[1]	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 Auto Service Technology AAS, 15 cr Aviation Maintenance Technology AAS, 15 cr Civil Engineering Technology AAS, 15 cr Commercial and Residential Wiring AAS, 15 - 16 cr Computer and Web Programming AAS, 15 cr Electronic Engineering Technology: Industrial Controls AAS, 15 - 16 cr Engineering CAD Technology AAS, 15 cr Machine Technology CNC Programmer AAS, 15 cr Network Administration & Cybersecurity AAS, 15 cr Radiologic Technology AAS, 15 cr		15 - 16	MnTC General Education Courses	1 - 10	15 - 16	
MnTC/General Education Total		15 - 16				

Special Notes: Students should work with their advisor at Lake Superior College and also MSU Moorhead to choose best general education courses. MSUM will accept other MnTC credits within the AAS degree and will transfer the same number of credits and goal areas Lake Superior College awards.
* If students takes equivalencies of these courses at Lake Superior College, fewer MNTC credits will be required in MSU – Moorhead's program:
COMM1110 - Methods of Public Speaking is equivalent to MSUM CMST 100 Speech Communication (Goal 1)
ENGL 1106 College Composition I is equivalent to MSUM ENGL 101 English Composition (Goal 1)
CHEM 1210 General Chemistry I is equivalent to MSUM CHEM 150 and 150L General Chemistry (Goal 3)

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

ECON 1160 - Principles of Economics: Microeconomics is equivalent to MSUM ECON 202 Principles of Economics I: Micro (Goal 5)
MATH 1100 - College Algebra is equivalent to MSUM MATH 127 College Algebra (Goal 4)
MATH 2210 - General Statistics is equivalent to MSUM MATH 234 Introduction to Probability and Statistics (Goal 4)
PHYS 1201 – Physics Concepts is equivalent to MSUM PHYS 160 and 160L College Physics I (Goal 3)
SOC 1111 Introduction to Sociology is equivalent to MSUM SOC 110 Introduction to Sociology (Goal 5)

SECTION B - Major, Emphasis, Restricted and Unrestricted Electives or Other

(pre-requisite courses, required core courses, required courses in an emphasis, or electives (restricted or general) within the major). Restricted electives (in Major) 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).

Major, Emphasis, Restricted, Unrestricted Electives or Other Courses			
Technical credits as prescribed in program Auto Service Technology AAS, 57 cr Aviation Maintenance Technology AAS, 88 cr Civil Engineering Technology AAS, 45 - 47 cr Commercial and Residential Wiring AAS, 65 – 67 cr Computer and Web Programming AAS, 57 cr Electronic Engineering Technology: Industrial Controls AAS, 56 - 57 cr Engineering CAD Technology AAS, 52 cr Machine Technology CNC Programmer AAS, 56 cr Network Administration & Cybersecurity AAS, 57 cr Radiologic Technology AAS, 63 cr		Technical Credits as prescribed in the program Additional credits up to 18 will be applied as unrestricted elective credits*	30 Up to 18
ALTH 1435 American Red Cross First Aid & CPR (1) and COMM 1602 Team building Procedure & Practice (1)	0 - 2	Not applicable	0
Major, Emphasis, Unrestricted Electives Total	45 - 88	**Total College Credits Applied (sum of sections A and B)**	60 - 64

Special Notes: *No more than 48 technical credits will be applies 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 Goal Requirements	17 - 18
	MATH 127 College Algebra (Goal 4)	3
	MATH 234 Intro to Probability & Statistics (Goal 4)	3
	ECON 202 Principles of Economics I: Micro (Goal 5)	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 in Business	3
	OM 482 Quality Planning & Implementation	3
	OM 483 Cost Analysis	3
	OM 485 Production & Inventory Management	3
	PMGT 300 Project Management & Scheduling	3
	PMGT 385 Process Leadership	3
	Electives (Credits needed to bring total for degree to 120)	0 - 1
	Total Remaining University Credits[2]	60

Special Notes, if any:

*The General Education courses listed below are required for the Operations Management BS degree. Equivalent courses can be taken at Lake Superior College (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)
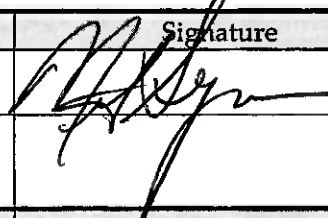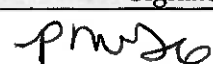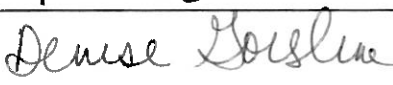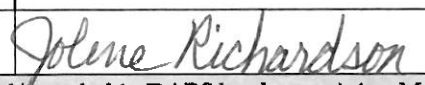MATH 234 Introduction to Probability and Statistics (3)

**Other suitable course exceptions to be handled by the OM faculty after enrollment

SECTION D - Summary of Total Program Credits

College (sending) Credits		University (receiving) Requirements	
MnTC/General Education	15 - 16		
Major, Emphasis, Unrestricted Electives or Other	45 - 88		
Total College Credits	60 - 103	**Total College Credits Applied**	60 - 64
		Remaining credit to be taken at the university (receiving institution)	60
		Total Program Credits	120 - 124

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
Chief Academic Officer	Michael Seymour		4-30-18

University	Name	Signature	Date
Department Chairperson	Pam McGee	*pmjg*	5/10/18
Academic Dean	Denise Gorsline	*Denise Gorsline*	5.10.18
Chief Academic Officer	Marsha Weber	*Marsha Weber*	5-15-18
DARS Encoder	Jolene Richardson	*Jolene Richardson*	5/18/18

Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.

April, 2018