

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

**Lake Superior College  
AND  
University of Minnesota Crookston**

\*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 2101 Trinity Road Duluth, MN 55811** (hereinafter sending institution), and **University of Minnesota Crookston 2900 University Ave Crookston, MN 56716** (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 an **Integrated Manufacturing – Engineering CAD Technology, Associate of Applied Science** (hereinafter sending program), and the receiving institution has established a **Bachelor of Manufacturing Management** (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, including grade requirements for courses and an overall GPA requirement.

**Transfer of Credits**

- A. The receiving institution will accept 68 credits from the sending program. A total of 52 credits remain to be completed at 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 12/01/2017 and shall remain in effect until the end date of 12/01/2022, 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 09/01/2022 (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

Check if the sending program \_\_\_ or receiving program \_\_\_ is new.

	College (sending)	University (receiving)
Institution	Lake Superior College	University of Minnesota-Crookston
Program name	Integrated Manufacturing – Engineering CAD Technology	Manufacturing Management
Award Type (e.g., AS)	Associate in Applied Science	Bachelor of Science
Credit Length	68	120
CIP code (6-digit)		
Describe program admission requirements (if any)	<p><b>English/Reading:</b> • A score of 78 or higher on the reading comprehension portion of the CPT, • OR completion of ENGL0950 or READ0950, which may be taken concurrently with Semester I coursework, • OR ENGL0955 or READ0955, which may be taken concurrently with Semester I coursework, • OR equivalent transfer course or higher</p> <p><b>Mathematics:</b> • A score of 33 or higher on the Elementary Algebra Skills portion of the CPT, • OR Completion of MATH0520, which may be taken concurrently with Semester I coursework, • OR its equivalent transfer course or higher with a grade of "C" or better</p>	

### 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
<b>Minnesota Transfer Curriculum-General Education</b>						
ENGL 1106 Composition I	1	3	COMP 1011 - Composition I	1	3	E
ENGL 1109 College Composition II	1	3	COMP 1013 - Composition II	1	3	E
ECON 1160 Principles of Econ: Microeconomics	5	3	ECON 2101 - Microeconomics	5	3	E
MATH 1100 College Algebra	4	3	MATH 1031 - College Algebra	4	3	E
MATH 2210 General Statistics	4	3	MATH 1150 - Elementary Statistics	4	3	E
<b>MnTC/General Education Total</b>		<b>15</b>				

**Special Notes, if any:** LSC only requires 14 general education electives. These are the classes that are needed to transfer seamlessly to complete UMNC Liberal Ed requirements. UM Crookston will honor transfer of COMM 1101 Public Speaking. This course is an additional course beyond completion of the AAS degree in Integrated Manufacturing, so students would have completed 74 credits prior to transfer.

## 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, microbiology, etc. which students can select).

Major, Emphasis, Restricted, Unrestricted Electives or Other Courses				
WLDG 1560 Gas Metal Arc Welding I	3			
INMG 1400 Introduction to Manufacturing Technology	4			
INMG 1410 Mechanical Blueprint Reading	3			
INMG 1412 Advanced Mechanical Blueprint Reading	3			
INMG 1420 Design Application Concepts I	3			
CADE 1407 AutoCAD I	3			
CADE 1468 SolidWorks I	3			
CADE 1470 Solid Works II	3			
CADE 1450 Mechanical Details	3			
CADE 1480 Industrial/Mechanical CAD Applications I	3			
CADE 1482 Industrial/Mechanical CAD Applications II	3			
CADE 1490 Industrial/Structural CAD Applications	3			
CADE 2400 AutoCAD II	3			
CADE 2452 PTC Creo Fundamentals	3			
CADE 2472 Auto CAD Design Project	3			
COMM 1601 Interviewing Procedures and Practice	1			
<i>Choose 6 credits from the following:</i> INMG 1422 Design Application Concepts II (3) CADE 2430 Industrial Piping Layout	6			
Restricted elective credits - list courses (if none enter 0)	0			
Unrestricted elective credits (if none enter 0)	0	College's unrestricted elective credits accepted in transfer (if none enter 0)		
<b>Major, Emphasis, Unrestricted Electives Total</b>	<b>53</b>	<b>Total College Credits Applied (sum of sections A and B)</b>		<b>68</b>

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

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

	course prefix, number and name	Credits
	GBUS 1005 - Orientation to Online Learning	1
	ACCT 3010 - Managerial Accounting	3
	BM 3000 - Manufacturing Processes	3
	BM 3025 - Lean Six Sigma	3
	BM 3034 - Applied Quality	3
	FIN 3100 - Managerial Finance	3
	MGMT 3200 - Principles of Management	3
	MGMT 3215 - Organizational Behavior	3
	MGMT 3250 - Operations Management	3
	MGMT 4200 - Project Management	3
	ACCT 2010 - Financial Accounting <i>or</i> ACCT 2101 - Principles of Accounting	3
	COMM 3008 - Business Writing <i>or</i> WRIT 3303 - Writing in Your Profession	3
	*SPCH 1101 Public Speaking (see note in Section A)	3
	Upper division business/technology (Acct, BM, Entr, Fin, GBus, ITM, Mgmt, Mktg, SE)	4
	Upper division electives	6
	University unrestricted elective credits not counted elsewhere (if none enter 0)	5
	<b>Total Remaining University Credits<sup>2</sup></b>	<b>52</b>

**Special Notes, if any:**

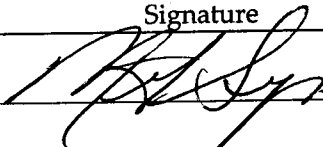
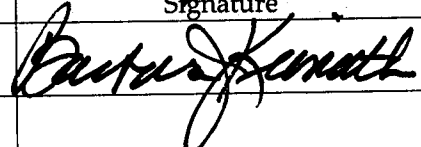
### SECTION D - Summary of Total Program Credits

College (sending) Credits		University (receiving) Requirements	
MnTC/General Education	15		
Major, Emphasis, Unrestricted Electives or Other	53		
<b>Total College Credits</b>	<b>68</b>	<b>Total College Credits Applied</b>	<b>68</b>
		<b>Remaining credit to be taken at the university (receiving institution)</b>	<b>52</b>
		<b>Total Program Credits</b>	<b>120</b>

**\*Special Notes, if any:**

The college and university shall notify one another if any changes of programs occur to ensure that a new articulation agreement will reflect the changes.

<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	MIKE SEYMOUR		12-6-17
Title			
University	Name	Signature	Date
Chief Academic Officer	Barbara Keirath		1/18/18
Vice Chancellor			
Title			
DARS Encoder			
Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.			

KDT 01/05/18