

MINNESOTA STATE COLLEGES AND  
UNIVERSITIES\*  
ARTICULATION AGREEMENT  
BETWEEN

Central Lakes College  
AND  
Bemidji State University

\*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 Central Lakes College 501 W. College Dr. Brainerd, MN 56401 (hereinafter sending institution), and Bemidji State University 1500 Birchmont Drive NE, Bemidji, MN 56601-2699 (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 a CNC Technologies Degree (hereinafter sending program), and the receiving institution has established a Project Management (Product Development Emphasis) (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 64-66 credits from the sending program. A total of 72 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 8/28/2018 and shall remain in effect until the end date of 8/27/2023 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 2/27/2023 (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.



April 7, 2015

## PROGRAM ARTICULATION TABLE

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

	College (sending)	University (receiving)
Institution	Central Lakes College	Bemidji State University
Program name	CNC Technologies	Project Management (Product Development)
Award Type (e.g., AS)	AAS	BS
Credit Length	64	120
CIP code (6-digit)	48.0501	52.0211
Describe program admission requirements (if any)		

### 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						
ENGL 1422 Practical Writing	1	3	MnTC Equivalent Course	1	3	Equiv
PHYS 1407 Principles of Physics	3	3	MnTC Equivalent Course	3	3	Equiv
General Education	1-10	9	MnTC Equivalent Course	1-10	9	
<b>MnTC/General Education Total</b>		15				

**Special Notes, if any:** Remaining liberal education requirements for a bachelor's degree may be completed at the college or university.

<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 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				
MATH 1500 Applied Mathematics	3	General Elective Credits	3	
MTTS 1110 Principles of Machine Operations I	2	General Elective Credits	2	
MTTS 1120 Machine Operations I	3	TADT 1210 Introduction to Manufacturing Processes I	3	Equiv
MTTS 1121 Machine Operations II	3	ACCT 2101 Principles of Accounting I	3	Sub
MTTS 1130 Print Reading	2	General Elective Credits	2	
CMAE 1528 or CMAE 1529 Career Success Skills (1 Cr) and RAST 1109 Computers in Industry (2 Cr)	3	BUAD 2280 Computer Business Applications	3	Sub
MTTS 1111* Principles of Machine Operations II	2	General Elective Credits	2	
MTTS 1122* Machine Operations III	3	TADT 1220 Intro. to Manufacturing Processes II	3	Equiv
MTTS 1124 Introduction to Engineering Graphics (2 Cr) and MTTS 2118* Jigs and Fixtures (1 Cr)	3	TADT 1460 2D Graphics And Laser Etching	3	Equiv
MTTS 1131* Print Applications	2	General Elective Credits	2	
MTTS 1135 CNC Programming and Process Planning (2 Cr) and MTTS 1134* CNC Operations (3 Cr)	5	TADT 1450 Intro to Product Development (3 Cr) & General Elective Credits (2 Cr)	5	Equiv
MTTS 2110 Geometric Dimensioning & Tolerancing (1 Cr) and MTTS 2112 Metallurgy (1 Cr) and MTTS 2116* Introduction to EDM (2 Cr)	4	General Elective Credits (1 Cr) TADT 2877 Engineering Problem Solving (3CR)	4	Equiv
MTTS 2130* CNC Milling and Turning	4	TADT 3462 Computer Controlled Machining (3 Cr) & General Elective Credit (1 Cr)	4	Equiv
MTTS 2134* CNC Operations Theory	2	General Elective Credits	2	
MTTS 1140 CAD/CAM I (2 Cr) and MTTS 2140* CAD/CAM II (2 Cr)	4	TADT 2461 Parametric 3D Modeling (3 Cr) and General Elective Credits (1 Cr)	4	Equiv
MTTS 2155 Capstone Project (4 Cr) or MTTS 2190 Internship (4-6 Cr)	4-6	General Elective Credits	4-6	
Unrestricted elective credits (if none enter 0)		College's unrestricted elective credits accepted in transfer (if none enter 0)		
<b>Major, Emphasis, Unrestricted Electives Total</b>	49-51	<b>Total College Credits Applied (sum of sections A and B)</b>	64-66	

**Special Notes:** TADT 3462 Computer Controlled Machining counts towards the university's 40 upper division credit graduation requirement.


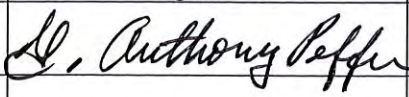
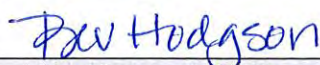
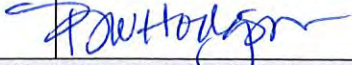
## SECTION C - Remaining University (receiving) Requirements

course prefix, number and name	Credits
Credits to complete (42 Cr.) liberal education and/or (120 Cr.) graduation requirements.	27
<b>TADT Common Core</b>	
TADT 1111 Introduction to Project Management	3
TADT 3267 Economic and Cost Analysis	3
TADT 4385 Sustainability and Emerging Technologies	3
TADT 4873 Emphasis Related Capstone	3
TADT 4878 Quality Assurance	3
TADT 3970 Internship	1
TADT 4970 Internship	2
<b>PROJECT MANAGEMENT CORE COURSES</b>	
BAUD 2220 Legal Environment	3
TADT 3112 Leadership in a Team Environment	3
TADT 3885 Technical Sales, Service and Training	3
TADT 4875 Facilities Management	3
TADT 4893 Applied Project Management	3
<b>PRODUCT DEVELOPMENT EMPHASIS</b>	

	TADT 2450 Product Finishing & Aesthetics	3
	TADT 3470 Concept to Prototype Model	3
	TADT 3537 Industrial Design/Innovation	3
	TADT 4589 Advanced Prototype Project	3
	<b>Total Remaining University Credits<sup>2</sup></b>	<b>72</b>
<b>Special Notes, if any:</b>		

<b>SECTION D - Summary of Total Program Credits</b>			
<b>College (sending) Credits</b>		<b>University (receiving) Requirements</b>	
<b>MnTC/General Education</b>	15		
<b>Major, Emphasis, Unrestricted Electives or Other</b>	49-51		
<b>Total College Credits</b>	64-66	<b>Total College Credits Applied</b>	64-66
		<b>Remaining credit to be taken at the university (receiving institution)</b>	72
		<b>Total Program Credits</b>	136-138
<b>Special Notes, if any:</b>			

<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.

<b>College</b>	<b>Name</b>	<b>Signature</b>	<b>Date</b>
Chief Academic Officer	Joy Bodin		3/21/19
Vice President			
Title			
<b>University</b>	<b>Name</b>	<b>Signature</b>	<b>Date</b>
Chief Academic Officer	Dr. Anthony Peffer		3/6/19
Provost			
Title			
DARS Encoder			2/22/19
Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.			