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 **Robotics/Automated Systems Technology AAS** (hereinafter sending program), and the receiving institution has established a **Engineering Technology 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, including grade requirements for courses and an overall GPA requirement.

Transfer of Credits

A. The receiving institution will accept 70-72 credits from the sending program. A total of 69 credits remain to complete the receiving program.
B. Courses will transfer as described in the attached Program Transfer 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 Transfer Agreement is effective on 08/29/2018 and shall remain in effect until 08/28/2023 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 Transfer Agreement will be reviewed by both parties beginning 02/27/2023 (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.

February 2, 2017

PROGRAM TRANSFER TABLE

Check if the sending program ___ or receiving program ___ is new.

	College (sending)	University (receiving)
Institution	Central Lakes College	Bemidji State University
Program name	Robotics/Automated Systems Technology	Engineering Technology
Award Type (e.g., AS)	AAS	BS
Credit Length	70	120
CIP code (6-digit)	15.0406	15.0612
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)[1]	Credits	course prefix, number and name	Goal(s)[1]	Credits Applied	Equiv Sub Wav
Minnesota Transfer Curriculum-General Education						
MATH 1470 College Algebra	4	3	MATH 1170 College Algebra	4	3	Equiv
MnTC Courses	1-10	12	MnTC Equivalent courses	1-10	12	Equiv
MnTC/General Education Total		15				

Special Notes, if any: Students may complete MnTC requirements at the college or university.

[1] 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				
MTTS 1264 Intro to Machining Process (2 Cr) and RAST 2165 Fluid Power (2 Cr)	4	TADT 1220 Intro to Manufacturing Processes II (3 Cr) and General Elective Credit (1 Cr)	4	Equiv
RAST 1104 Introduction to Automation (2 Cr) RAST 1109 Computers in Industry (2 Cr) RAST 1110 Intro to Manufacturing (2 Cr)	6	General Elective Credit (1 Cr) TADT 2100 Impact Of Technology (2 Cr) and TADT 1464 Engineering Technology Project I (3 Cr)	6	Equiv
RAST 1120 Intro to Engineering Graphics (2 Cr) and RAST 1111 Industrial Electronics Lab I (2 Cr)	4	TADT 1460 2D Graphics & Laser Etching (3 Cr) and General Elective Credit (1 Cr)	4	Equiv
RAST 1101 Industrial Electronics I (3 Cr) and RAST 1102 Industrial Electronics II (3 Cr)	6	TADT 2465 Engineering Tech. Project II (3 Cr) and General Elective Credits (3 Cr)	6	Equiv
RAST 1103 Motors and Drives	3	TADT 1111 Introduction to Project Management	3	Sub
RAST 1113 Motors & Drives Lab	3	TADT 1210 Intro to Manufacturing Processes I	3	Sub
RAST 1212 Industrial Electronics Lab II	2	General Elective Credits	2	
RAST 2101 Application Planning & Layout	2	General Elective Credits	2	
RAST 2106 Industrial Electronics III	2	General Elective Credits	2	
RAST 2116 Industrial Electronics Lab III	2	General Elective Credits	2	
RAST 2105 Transducers	2	General Elective Credits	2	
RAST 2132 Robotic Programming	3	General Elective Credits	3	
RAST 2151 Robot Integration Lab	6	General Elective Credits	6	
RAST 1206 Programmable Logic Controllers I (3 Cr) and RAST 2355 Programmable Logic Controllers II (2 Cr)	5	TADT 3277 Programmable Logic Controllers (3 Cr) And General Elective Credits (2 Cr)	5	Equiv
RAST 2154 Robot Controller Maintenance	2	General Elective Credits	2	
RAST 2395 Advanced Robot Controller Programming	2	General Elective Credits	2	
RAST 2390 Robotics Internship (1-3 Cr) or RAST 2399* Independent Study (1-3 Cr)	1-3	TADT 3970 Internship (1 Cr) General Elective Credit (1-3 Cr)	1-3	Equiv
Major, Emphasis, Unrestricted Electives Total	55-57	**Total College Credits Applied (sum of sections A and B)**	70-72	

Special Notes: TADT 3277 Programmable Logic Controllers and TADT 3970 Internship credits count toward the university's 40 upper division credit graduation requirement. Students will need additional upper division courses. It is strongly recommended that students take TADT 3111 Applied Project Management. See your university advisor for details.

SECTION C - Remaining University (receiving) Requirements

course prefix, number and name	Credits
Remaining Liberal education-MnTC Requirements	14
TADT Common Core – 14 Credits	
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 4970 Internship	2
Engineering Technology Core – 34 Credits	
* MATH 1470 Precalculus	5
* PHYS 1101 General Physics I	4
* PHYS 1102 General Physics II	4
TADT 2217 Strength of Materials	3
TADT 2461 Parametric 3D Modeling	3
TADT 2877 Engineering Problem Solving	3
TADT 3217 Materials Science and Metallurgy	3
TADT 3462 Computer Controlled Machining	3
TADT 3537 Industrial Design/Innovation	3
TADT 4778 Advanced Topics in Technology	3

	Required Foundation Courses, Select 7 Credits	7
	TADD 3440 3D Design Software (4 Cr)	
	TADD 3450 History of Modern Design (4 Cr)	
	TADD 3579 Branding and Packaging (4 Cr)	
	TADT 3250 Print Reading and Project Documentation (3 Cr)	
	TADT 4589 Advanced Prototype Project (3 Cr)	
	TADT 4880 Total Quality Management (3 Cr)	
	University unrestricted elective credits not counted elsewhere (if none enter 0)	
	Total Remaining University Credits[2]	69
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	55-57		
Total College Credits	70-72	**Total College Credits Applied**	70-72
		Remaining credit to be taken at the university (receiving institution)	69
		Total Program Credits	139-141
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	Joy Bodin	Joy Bodin	3/21/19
Vice President			
Title			
University	Name	Signature	Date
Chief Academic Officer	Dr. Anthony Peffer	L. Anthony Peffer	3/6/19
Provost			
Title			
DARS Encoder	Bev Hodgson	Bev Hodgson	2/22/19
Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.			