MINNESOTA STATE COLLEGES AND UNIVERSITIES* TRANSFER AGREEMENT BETWEEN	Hennepin Technical 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 Hennepin Technical College, 9000 Brooklyn Blvd, Brooklyn Park, MN 55445, (hereinafter sending institution), and Bemidji State University 1500 Birchmont Drive NE, Bemidji, MN 56601, (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 **Hydraulic Engineering Technician AAS** (hereinafter sending program), and the receiving institution has established an **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 60-61 credits from the sending program. A total of 75-76 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 11/01/2018 and shall remain in effect until 11/01/2023 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 06/01/2023 (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.

February 2, 2017

PROGRAM ARTICULATION TABLE

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

	College (sending)	University (receiving)
Institution	Hennepin Technical College	Bemidji State University
Program name	Hydraulic Engineering Technician	Engineering Technology
Award Type (e.g., AS)	AAS	BS
Credit Length	60	120
CIP code (6-digit)	15.1103	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						
ENGL2121 Writing and Research (4 credits) or ENGL2125 Technical Writing (3 credits)	1	3-4	ENGL 1151 Composition (4 Cr) or ENGL 2125 Argument & Exposition (3 Cr)	1	3-4	Equiv
MnTC Courses from Goal Areas 2-10 (Courses must be from at least two goal areas)	2-10	12	MnTC Equivalent Course	2-10	12	Equiv
MnTC/General Education Total		15-16				

Special Notes, if any: MnTC requirements may be completed at the college or the 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				
FLPW1101 Fluid Power Technology I	3	General Elective Credit	3	
FLPW1106 Fluid Power Technology II	4	TADT 1210 Intro to Manufacturing Processes I (3 Cr) and General Elective Credit (1 Cr)	4	Sub
FLPW1181 Pumps, Actuators, and Conductors	4	General Elective Credit	4	
FLPW1191 Hydraulic Components	3	General Elective Credit	3	
FLPW1231 Industrial Electricity I	3	General Elective Credit	3	
FLPW1236 Industrial Electricity II	3	General Elective Credit	3	
FLPW1320 Hydraulic Circuits	2	General Elective Credit	2	
FLPW2000 Programmable Logic Controllers	3	TADT 3277 Programmable Logic Controllers	3	Equiv
FLPW2180 Circuit Design	3	General Elective Credit	3	
FLPW2112 Instrumentation of Fluid Power Systems	3	General Elective Credit	3	
FLPW2191 Industrial Circuit Design	3	TADT 2465 Engineering Technology Project II	3	Equiv
FLPW2250 Proportional and Servo Controls (Robotics Application)	3	General Elective Credit	3	
FLPW2301 Mobile Circuit Design	3	TADT 1111 Intro to Project Management	3	Sub
FLPW2350 Hydraulic Specialist Certification Review	2	TADT 2100 Impact Of Technology	2	Equiv
METS2100 Statics and Strength of Materials	3	TADT 2217 Strength of Materials	3	Equiv
Major, Emphasis, Unrestricted Electives Total	45	**Total College Credits Applied (sum of sections A and B)**	60-61	

Special Notes: TADT 3277 counts toward the university's forty credit upper division requirements.

SECTION C - Remaining University (receiving) Requirements

course prefix, number and name	Credits
Credits to complete the MnTC and liberal education requirements	13-14
TADT Common Core – 18 Credits	
TADT 1460 2D Graphics & Laser Etching	3
TADT 3267 Economic and Cost Analysis	3
TADT 3970 Internship	1
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 – 37 Credits	
MATH 1470 Precalculus *	5
PHYS 1101 General Physics I *	4
PHYS 1102 General Physics II *	4
TADT 1464 Engineering Technology Project I	3
TADT 1220 Introduction to Manufacturing Processes II	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 credits)	
TADD 3450 History of Modern Design (4 credits)	

	TADD 3579 Branding and Packaging (4 credits)	
	TADT 3250 Print Reading & Project Documentation (3 credits)	
	TADT 4589 Advanced Prototype Project (3 credits)	
	TADT 4880 Total Quality Management (3 credits)	
	Total Remaining University Credits[2]	75-76

Special Notes, if any: To complete the required forty upper division credit requirement, some of the remaining MnTC and Liberal education courses may need to be upper division courses. Courses with a * also count toward completion of MnTC Requirements. Students not receiving any formal Project Management course at the college are encouraged to take TADT 3111 Project Management Methodology (3 Cr) at the university.

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		
Total College Credits	60-61	**Total College Credits Applied**	60-61
		Remaining credit to be taken at the university (receiving institution)	75-76
		Total Program Credits	136

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	Jeffrey Parks	Jeffrey Parks	3-22-19
Provost Title			
University	Name	Signature	Date
Chief Academic Officer	Dr. Anthony Peffer	J. Anthony Peffer	1/29/19
Provost Title			
DARS Encoder	Beverly Hodgson	Beverly Hodgson	1.17.19
Date when equivalencies were verified/encoded in DARS by the receiving Minnesota State institution.			