

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 **Manufacturing Engineering Technology, Machine Tool Technology Specialization 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 **60-62** credits from the sending program. A total of **65-67 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.
- F.



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	Manufacturing Engineering Technology, Machine Tool Technology Specialization			Engineering Technology			
Award Type (e.g., AS)	AAS			BS			
Credit Length	60			120			
CIP code (6-digit)	15.0613			15.0612			
Describe program admission requirements (if any)							
<p align="center"><b>Instructions</b></p> <ul style="list-style-type: none"> <li>List all required courses in both academic programs.</li> <li>MnTC goal areas transfer to the receiving institution according to the goal areas designated by the sending institution.</li> <li>Do not indicate a goal area for general education courses that are not part of the MnTC.</li> <li>For restricted or unrestricted electives, list number of credits.</li> <li>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.</li> <li>Show equivalent university-college courses on the same row to ensure accurate DARS encoding.</li> <li>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.</li> </ul> <p align="center">(To add rows, place cursor outside of the end of a row and press enter.)</p>							
<b>SECTION A - Minnesota Transfer Curriculum-General Education</b>							
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							
ENGL2121 Writing and Research (4 Cr) or ENGL2125 Technical Writing (3 Cr)	1	3-4		ENGL 1151 Composition (4 Cr) or ENGL 2125 Argument and Exposition (3 Cr)	1	3-4	Equiv
MATH2050 Applications of Quantitative Reasoning (3 Cr) or MATH2150 Introduction to Statistics (3 Cr) or MATH2200 College Algebra (4 Cr)	4	3-4		MnTC Equivalent Course	4	3-4	Equiv
Choose one course from MnTC Goal Area 2	2	3		MnTC Equivalent Course	2	3	Equiv
MnTC Course at the 2000 Level	1-10	6		MnTC Equivalent Course	1-10	6	Equiv
<b>MnTC/General Education Total</b>		15-17					
<b>Special Notes, if any:</b> Remaining MnTC Requirements may be taken 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				
<b>Manufacturing Engineering Technology Core</b>				
ENGC1011 Engineering Drawing	3	General Elective Credit	3	
FLPW1101 Fluid Power Technology I	3	TADT 2100 Impact Of Technology (2 Cr) and General Elective Credit (1Cr)	3	Equiv
FLPW1231 Industrial Electricity I	3	TADT 2465 Engineering Technology Project II	3	Equiv
METS1020 Industrial Manufacturing Processes	3	TADT 1111 Introduction to Project Management	3	Sub
METS1050 Quality Control	3	General Elective Credit	3	
METS1200 Industry Practices and Procedures	3	General Elective Credit	3	
METS2000 Engineering Design Principles	3	TADT 1464 Engineering Technology Project I	3	Equiv
METS2100 Statics and Strength of Materials	3	TADT 2217 Strength of Materials	3	Equiv
ARET1140 Computer Integrated Manufacturing (3 Cr) <b>and</b> ENGC1050 Additive Manufacturing (3 Cr) <b>or</b> MACH1205 Machine Tool Technology (3 Cr) <b>and</b> PLST1041 Introduction to Plastics Molding Processes (3 Cr)	6	TADT 1210 Intro to Manufacturing Processes I (3 Cr) and TADT 1220 Intro to Manufacturing Processes II (3 Cr)	6	Equiv
<b>Machine Tool Specialization</b>				
MACH1056 Blueprint Reading I	3	TADT 3250 Print Reading & Project Documentation	3	Equiv
MACH1110 Turning Technology I	3	General Elective Credit	3	
MACH1125 Milling Technology I	3	General Elective Credit	3	
MACH2400 CNC Setup and Operation	3	TADT 3462 Computer Controlled Machining	3	Equiv
MACH2406 CNC Programming	3	General Elective Credit	3	
Restricted elective credits - list courses (if none enter 0)				
Unrestricted elective credits (if none enter 0)				
<b>Major, Emphasis, Unrestricted Electives Total</b>	45	<b>Total College Credits Applied (sum of sections A and B)</b>	60-62	
<b>Special Notes:</b> TADT 4878, TADT 3250 and TADT 3462 counts towards the university's 40 Credit Upper Division requirement.				

## SECTION C - Remaining University (receiving) Requirements

course prefix, number and name		Credits
Credits to complete MnTC and liberal education requirements		12-14
<b>TADT Common Core – 15 Credits</b>		
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 4970 Internship		2
TADT 4878 Quality Assurance		3
<b>Engineering Technology Core – 34 Credits</b>		
* MATH 1470 Precalculus		5
* PHYS 1101 General Physics I		4
* PHYS 1102 General Physics II		4
TADT 1460 2D Graphics And Laser Etching		3
TADT 2461 Parametric 3D Modeling		3
TADT 2877 Engineering Problem Solving		3
TADT 3217 Materials Science and Metallurgy		3

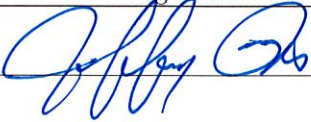
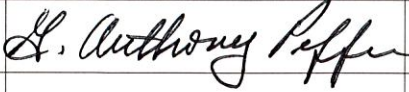
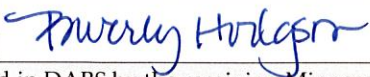


	TADT 3277 Programmable Logic Controllers	3
	TADT 3537 Industrial Design/Innovation	3
	TADT 4778 Advanced Topics in Technology	3
	<b>Required Foundation Courses, Select 4 Credits</b>	4
	TADD 3440 3D Design Software (4 Cr)	
	TADD 3450 History of Modern Design (4 Cr)	
	TADD 3579 Branding and Packaging (4 Cr)	
	TADT 4589 Advanced Prototype Project (3 Cr)	
	TADT 4880 Total Quality Management (3 Cr)	
<b>Total Remaining University Credits<sup>2</sup></b>		65-67

**Special Notes:** 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.

<b>SECTION D - Summary of Total Program Credits</b>			
<b>College (sending) Credits</b>		<b>University (receiving) Requirements</b>	
<b>MnTC/General Education</b>	15-17		
<b>Major, Emphasis, Unrestricted Electives or Other</b>	45		
<b>Total College Credits</b>	60-62	<b>Total College Credits Applied</b>	60-62
		<b>Remaining credit to be taken at the university (receiving institution)</b>	65-67
		<b>Total Program Credits</b>	127
<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	Jeffrey Parks		3-22-19
Provost			
Title			
<b>University</b>	<b>Name</b>	<b>Signature</b>	<b>Date</b>
Chief Academic Officer	Dr. Anthony Pfeffer		1/29/19
Provost			
Title			
DARS Encoder	Beverly Hodgson		1.17.19
Date when equivalencies were verified/encoded in DARS by the receiving Minnesota State institution.			