MINNESOTA STATE COLLEGES AND UNIVERSITIES* ARTICULATION 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 (hereinafter sending institution), and Bemidji State University (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 Automation Robotics Engineering Technology AAS (hereinafter sending program), and the receiving institution has established an Applied Engineering BAS (hereinafter receiving program), and will facilitate credit transfer and provide a smooth transition from one related program to another. It is mutually agreed:

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 credits from the sending program. A total of 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 1/18/17 and shall remain in effect until the end date of 1/17/2022 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 7/17/2022 (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.

April 7, 2015

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	Automation Robotics Engineering Technology	Applied Engineering
Award Type (e.g., AS)	AAS	BAS
Credit Length	60	120
CIP code (6-digit)	15.0406	15.0000
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						
ENGL 2121 Writing and Research or ENGL 2125 Technical Writing	1	3-4	ENGL 1151 Composition ENGL 2152 Argument and Exposition	1	3-4	
MATH2050 Applications of Quantitative Reasoning or MATH 2200 College Algebra	2,4	3-4	MnTC Goal 2,4 MATH 1170 College Algebra	2,4	3-4	
PHIL 2100 Critical Thinking	2	3	MnTC Goal 2	2	3	

[1] MnTC goal areas transfer to the receiving MnSCU college/university according to the goal areas designated by the sending college/university

PHYS 2001 Introductory Physics	2, 3	3	MnTC Goals 2, 3	2, 3	3	
Liberal Equivalent Course to achieve 15 MnTC credits	3-10	1-3	MnTC Goals 3-10	3-10	1-3	
MnTC/General Education Total		15				

Special Notes, if any: Remaining liberal education requirements for a bachelor's degree may be completed at the college or 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				
ARET1125 Power Transmission and Mechanical Systems	4			
ARET1130 Maintenance Operations	2			
ARET1140 Computer Integrated Manufacturing	3			
ARET1155 Automation Controls 3	3	Block Transfer of Credits	38	
ARET1160 Packaging Machinery Systems	4			
ARET1165 Vision Systems for QA/SPC	3			
ARET1170 Troubleshooting Packaging Machinery	3			
ARET1175 Industrial Electricity and Electronics I	3			
ARET1180 Industrial Electricity and Electronics II 3	3			
ARET1190 Programmable Logic Controllers	3	General Elective Credits	7	
ARET1200 Introduction to Robotics	2			
ARET2100 Advanced Automation Controls	4			
ARET2105 Fluid Power Motion Control	2			
ARET2110 Advanced Programmable Logic Controllers	4			
ARET2150 Engineering Design and Fabrication	2			
Restricted elective credits - list courses (if none enter 0)				
Unrestricted elective credits (if none enter 0)		College's unrestricted elective credits accepted in transfer (if none enter 0)		
Major, Emphasis, Unrestricted Electives Total	45	**Total College Credits Applied (sum of sections A and B)**	60	

SECTION C - Remaining University (receiving) Requirements

course prefix, number and name	Credits
General Electives to complete liberal education requirements	27
TADT COMMON CORE 15 credits	
TADT 3111 Project Management Methodology	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
APPLIED ENGINEERING CORE 21 credits	
TADT 3100 Principles of Professional Development	3
TADT 3217 Material Science and Metallurgy	3
TADT 3537 Industrial Design and Innovation	3
TADT 3700 Operations Planning and Control	3
TADT 3887 Safety and Risk Management	3
TADT 4867 Lean Principles and Practices	3
TADT 4879 Services Process/Improvement	3
UPPER DIVISION TADT ELECTIVES	4

	University unrestricted elective credits not counted elsewhere (if none enter 0)	
	Total Remaining University Credits[2]	67
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	45		
Total College Credits	60	**Total College Credits Applied**	60
		Remaining credit to be taken at the university (receiving institution)	67
		Total Program Credits	127
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			
Provost Title	Carmen Coballes-Vega	Carmen Coballes-Vega	2-15-17
University	Name	Signature	Date
Chief Academic Officer			
Provost and Vice President for Academic and Student Affairs Title	Dr. Michael Anderson		2-9-17
DARS Encoder	Bev Hodgson	Bev Hodgson	2.8.17
	Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.		