

MINNESOTA STATE COLLEGES AND  
UNIVERSITIES\*  
ARTICULATION AGREEMENT  
BETWEEN

St. Cloud Technical & Community 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 St. Cloud Technical & Community 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 a **Mechanical Design Technology A.A.S** (hereinafter sending program), and the receiving institution has established an **Applied Engineering, B.A.S. major** (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 60-68 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 04/05/2016 and shall remain in effect until the end date of 04/04/2021 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 10/04/2020 (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.

## PROGRAM ARTICULATION TABLE

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

	College (sending)	University (receiving)
Institution	St. Cloud Technical & Community College	Bemidji State University
Program name	Mechanical Design Technology	Applied Engineering
Award Type (e.g., AS)	A.A.S.	B.A.S.
Credit Length	60-68 credits	120
CIP code (6-digit)	15.1306 (7436)	15.000
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						
MATH 1300 College Algebra	4	3	MNTC MATH Elective	4	3	
MATH 1321 College Trigonometry	4	3	MNTC MATH Elective	4	3	
MNTC Goal Area 1 Communications	1	3	MNTC Goal Area 1	1	3	
MNTC Transfer Electives	2,3 or 5-10	6	MNTC Transfer Electives	2,3, or 5-10	6	
<b>MnTC/General Education Total</b>		<b>15</b>				

**Special Notes, if any:**

<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>Mechanical Design Technology Core Classes (36 Cr.)</b>			
CADD 1502 Mechanical CADD I	3		
CADD 1507 Mechanical CADD II	3		
CADD 1512 CADD Applications I	3		
CADD 1516 CADD Applications II	3		
CADD 1520 SolidWorks Foundations	3		
CADD 2505 Production CADD I	3		
CADD 2509 Production CADD II	3		
CADD 2529 Manufacturing Systems	2		
CADD 2532 Geometric Dimensioning and Tolerancing	2		
CADD 2541 Basic Cam	2		
CADD 2542 Reverse Engineering	2		
TECH 1530 Computer Applications	2		
TECH 1556 Basic Manual-Automated Machining	2		
TECH1552 Basic Metal Joining and Fabrication	2		
Tech 1540 Technical Communications	1		
<b>Mechanical Design Technology Concentration (17 Cr.)</b>			
CADD 1522 Applied Physics	4		
CADD 1530 Basic Electric Circuits	1		
CADD 2510 Design Concepts	3		
CADD 2514 Computer-Aided Design	3		
CADD 2518 Statics and Strength of Materials	3		
CADD 2522 Machine Design	3		
<b>Reverse Engineering/Rapid Prototype Construction Concentration (9 Cr.)</b>			
RERP 2506 Measurement Systems	3		
RERP 2510 3D Scanning to Solid model	2		
RERP 2514 Rapid Prototyping Technologies	3		
RERP 2518 Advanced Reverse Engineering	1		
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)	
<b>Major, Emphasis, Unrestricted Electives Total</b>	45-53	<b>Total College Credits Applied (sum of sections A and B)</b>	60-68

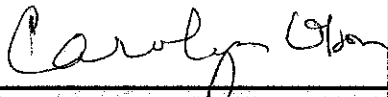
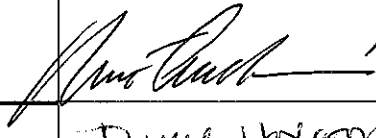

## SECTION C - Remaining University (receiving) Requirements

	course prefix, number and name	Credits
	Complete all remaining MnTC/liberal education goal areas	27
	<b>TADT COMMON CORE 15 credits</b>	
	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
	<b>APPLIED ENGINEERING CORE 21 credits</b>	
	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
	<b>UPPER DIVISION REQUIREMENTS</b>	4
	University unrestricted elective credits not counted elsewhere (if none enter 0)	
	<b>Total Remaining University Credits<sup>2</sup></b>	67

SECTION D - Summary of Total Program Credits			
College (sending) Credits		University (receiving) Requirements	
MnTC/General Education	15		
Major, Emphasis, Unrestricted Electives or Other	45-53		
<b>Total College Credits</b>	60-68	<b>Total College Credits Applied</b>	60-68
		<b>Remaining credit to be taken at the university (receiving institution)</b>	67
		<b>Total Program Credits</b>	127-135
<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.

College	Name	Signature	Date
Chief Academic Officer			
Vice President of Academic Affairs	Carolyn Olson		12/20/16
Title			
University	Name	Signature	Date
Chief Academic Officer			
Provost & Vice President of Academic Affairs	Dr. Michael Anderson		10-14-16
Title			
DARS Encoder	Beverly Hodgson		9/20/16
Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.			