

MINNESOTA STATE COLLEGES AND  
UNIVERSITIES\*  
ARTICULATION AGREEMENT  
BETWEEN

NORTHLAND COMMUNITY AND TECHNICAL  
COLLEGE  
AND  
MINNESOTA STATE UNIVERSITY MOORHEAD

\*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 NORTHLAND COMMUNITY AND TECHNICAL COLLEGE (hereinafter sending institution)**, and **MINNESOTA STATE UNIVERSITY MOORHEAD (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 **ELECTRONICS TECHNOLOGY – AUTOMATED SYSTEMS AAS** (hereinafter sending program), and the receiving institution has established a **PROJECT MANAGEMENT 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.

**Transfer of Credits**

- A. The receiving institution will accept **54 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 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 **03/15/2015** and shall remain in effect until the end date of **03/15/2020** 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 **09/15/2019** (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

	College (sending)	University (receiving)
Institution	Northland Community and Technical College	Minnesota State University Moorhead
Program name	Electronics Technology	Project Management
Award Type (e.g., AS)	AAS	BS
Credit Length	60	120
CIP code (6-digit)	15.0303	52.0211
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
<b>Minnesota Transfer Curriculum-General Education</b>						
ENGL 1111 Composition I	1, 2	3	ENG 101 English Composition I	1, 2	3	Equiv
ENGL 2207 Technical Writing	2	3	ENGL 286 Writing for the Workplace	2	3	Equiv
MATH 1110 College Algebra	4	3	MATH 127 College Algebra	4	3	Equiv
History/ Social Science Elective	5	3	Goal Area 5	5	3	
<i>Recommended: ECON 2201 Microeconomics*</i>	<i>(5)</i>	<i>(3)</i>	<i>ECON 202 Prin of Economics I: Micro*</i>	<i>(5)</i>	<i>(3)</i>	<i>Equiv</i>
MN Transfer Curriculum Electives Goal Area 3 - 10	2 - 10	3	MnTC Goal Area 2 - 10	2 - 10	3	
<b>MnTC/General Education Total</b>		15				

**Special Notes:** Additional MnTC courses taken at Northland will transfer with the same number of credits and goal areas as NCTC awards. \*Required course for Project Management BS.

### SECTION B - Major, Emphasis, Restricted and Unrestricted Electives or Other

<sup>1</sup> MnTC goal areas transfer to the receiving MnSCU college/university according to the goal areas designated by the sending college/university

(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			
Program Specific Electives	3	Elective OR	3
<i>*Recommended: MKTG 2200 Prin of Marketing</i>	(3)	<i>MKTG 310 Prin of Marketing*</i>	(3)
ETAS 1104 Analog Circuits	3	Electives	36
ETAS 1106 Digital Electronics	3		
ETAS 1110 Elec Design & Fabrication	3		
ETAS 1560 Robotic Programming I	2		
ETAS 2220 Microcontrollers I	4		
ETAS 2221 Sensor Technology	4		
ETAS 2224 Program Logic Controllers	4		
ETAS 2228 New & Emerging Technology	3		
ETAS 2230 Motor Controls	3		
ETAS 2232 Microcontrollers II	4		
ETAS 2580 Hydraulics & Pneumatics	3		
ETAS 1101 DC Power (3), ETAS 1103 AC Power (3)	6		
<b>Major, Emphasis, Unrestricted Electives Total</b>	<b>45</b>	<b>Total College Credits Applied (sum of sections A and B)</b>	<b>54</b>

**Special Notes:** \*Recommended because this is a required course for Project Management.

### SECTION C - Remaining University (receiving) Requirements

	course prefix, number and name	Credits
	MnTC/ LASC Goal Areas and Requirements*	24
	MATH 234 Probability & Statistics (Goal 4)	3
	ACCT 230 Principles of Accounting I	3
	ENGL 387 Technical Report Writing	3
	FINC 340 Financial Management	3
	MGMT 360 Principles of Management	3
	MGMT 370 Management Information Systems	3
	MGMT 456 Project Management in Business	3
	OM 380 Methods Improvements	3
	OM 483 Cost Analysis	3
	OM 394 Computer Applications in Business	3
	OM 482 Quality Planning and Implementation	3
	PMGT 300 Project Management and Scheduling	3
	PMGT 385 Process Leadership	3
	PMGT 400 Advanced Project Management, Risk and Liability	3
	PMGT 496 Project Management	3
	**ECON 202 Principles of Economics I: Micro	(3)
	** MKTG 310 Prin of Marketing	(3)
	<b>Total Remaining University Credits<sup>2</sup></b>	<b>69</b>

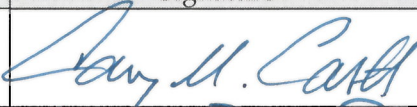

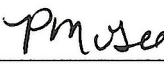
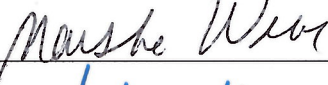


**Special Notes, if any:** \* Students should take LASC courses that cover more than one goal area if possible. Goal areas must be met and 42 MnTC/ LASC credits earned. \*\*These courses are required if the equivalents aren't taken at NCTC.

### SECTION D - Summary of Total Program Credits

College (sending) Credits		University (receiving) Requirements	
MnTC/General Education	15		
Major, Emphasis, Unrestricted Electives or Other	45		
<b>Total College Credits</b>	<b>60</b>	<b>Total College Credits Applied</b>	<b>54</b>
		<b>Remaining credit to be taken at the university (receiving institution)</b>	<b>69</b>
		<b>Total Program Credits</b>	<b>123</b>

**Special Notes, if any:**

<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
VP Academic & Student Affairs	Carey Castle		16 Apr 15
Academic Dean	James Retka		4/16/15
University	Name	Signature	Date
Department Chairperson	Pam McGee		5-10-15
Academic Dean	Dr. Marsha Weber		5-13-15
Chief Academic Officer	Dr. Michelle Malott		5/14/15
DARS Encoder	Tara Spletstoser		6/19/15
Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.			