

MINNESOTA STATE COLLEGES AND
UNIVERSITIES*
ARTICULATION AGREEMENT
BETWEEN

HENNEPIN 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 HENNEPIN 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 the following programs (hereinafter sending program):

Animation and Motion Graphic Artist Diploma, 10.0201
Architectural Technology Diploma, 15.1303
Auto Body Technician Diploma, 47.0603
Automated Machinery Systems Diploma, 15.0406
Mechatronics Diploma, 15.0406
Automotive Technician Diploma, 47.0604
Cabinetmaking Diploma, 48.0703
Computer Numerical Control Technician Diploma, 48.0510
Controls Engineer Technician Diploma, 15.0406
Desktop Support Diploma, 11.1006
Electronics Technology Diploma, 15.0303
Engineering CAD Technology Diploma, 15.1302
Fluid Power Engineering Technician Diploma, 15.1103
Fluid Power Mechanic Diploma, 15.1103
Graphic Design: Creative Diploma 50.0102
Graphic Design: Web Design Diploma 50.0409
Residential Heating, Ventilation, and Air Conditioning Diploma, 47.0201
Hydraulic Engineering Technician Diploma, 15.1103
Interactive Designer Diploma 09.0702
Landscape Design & Construction Diploma, 01.0605
Landscape/ Horticulture Diploma, 01.0605
Marine, Motorsport and Outdoor Power Equipment Technician Diploma, 47.0616
Medium/ Heavy Truck Maintenance Technician Diploma, 47.0613
.NET Programmer Diploma, 11.0202
Networking Support Specialist Diploma, 11.1001
Pneumatic Engineering Technician Diploma, 15.1103

Tool and Die/ Moldmaking Diploma, 48.0507

Video Production Specialist Diploma, 10.0201

Welding Diploma, 48.0508

and the receiving institution has established an **Operations 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, including grade requirements for courses and an overall GPA requirement.

Transfer of Credits

- A. The receiving institution will accept 30 - 54 credits from the sending program. A total of 71- 90 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 06/01/2016 and shall remain in effect until the end date of 06/01/2021 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 12/01/2020 (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		
	College (sending)	University (receiving)
Institution	Hennepin Technical College	Minnesota State University Moorhead
Program name	Animation and Motion Graphic Artist Diploma, 10.0201, 54 cr Architectural Technology Diploma, 15.1303, 64 cr Auto Body Technician Diploma, 47.0603, 64 cr	Operations Management

	<p>Automated Machinery Systems Diploma, 15.0406, 60 cr</p> <p>Mechatronics Diploma, 15.0406, 60 cr</p> <p>Automotive Technician Diploma, 47.0604, 65 cr</p> <p>Cabinetmaking Diploma, 48.0703, 64 cr</p> <p>Computer Numerical Control Technician Diploma, 48.0510, 64 cr</p> <p>Controls Engineer Technician Diploma, 15.0406, 60 cr</p> <p>Desktop Support Diploma, 11.1006, 50 cr</p> <p>Electronics Technology Diploma, 15.0303, 64 cr</p> <p>Engineering CAD Technology Diploma, 15.1302, 64 cr</p> <p>Fluid Power Engineering Technician Diploma, 15.1103, 66 cr</p> <p>Fluid Power Mechanic Diploma, 15.1103, 34 cr</p> <p>Graphic Design: Creative Diploma 50.0102, 64 cr</p> <p>Graphic Design: Web Design Diploma 50.0409, 64 cr</p> <p>Residential Heating, Ventilation, and Air Conditioning Diploma, 47.0201, 35 cr</p> <p>Hydraulic Engineering Technician Diploma, 15.1103, 64 cr</p> <p>Interactive Designer Diploma 09.0702, 58 cr</p> <p>Landscape Design & Construction Diploma, 01.0605, 64 cr</p> <p>Landscape/ Horticulture Diploma, 01.0605, 64 cr</p> <p>Marine, Motorsport and Outdoor Power Equipment Technician Diploma, 47.0616, 64 cr</p> <p>Medium/ Heavy Truck Maintenance Technician Diploma, 47.0613, 43 cr</p> <p>.NET Programmer Diploma, 11.0202 42 cr</p> <p>Networking Support Specialist Diploma, 11.1001, 44 cr</p> <p>Pneumatic Engineering Technician Diploma, 15.1103, 64 cr</p> <p>Tool and Die/ Moldmaking Diploma, 48.0507, 64 cr</p> <p>Video Production Specialist Diploma, 10.0201, 64 cr</p> <p>Welding Diploma, 48.0508, 55 cr</p>	
Award Type (e.g., AS)	AAS	BS
Credit Length	(See above)	120
CIP code (6-digit)	(See above)	52.020500

Describe program admission requirements (if any)		Diploma with 30+ prescribed technical credits, as prescribed by program's accrediting board, The Association of Technology, Management, and Applied Engineering (ATMAE)
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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						
General Education Requirements						
Animation and Motion Graphic Artist Diploma, 3 cr						
Architectural Tech Diploma, 0 - 4 cr						
Auto Body Technician Diploma, 0 - 4 cr						
Automated Machinery Sys Diploma, 0 cr						
Mechatronics Diploma, 6 cr						
Automotive Technician Diploma, 0 - 4 cr						
Cabinetmaking Diploma, 0 - 6 cr						
Computer Numerical Control Technician Diploma, 0 cr			MnTC General Education Courses	1 - 10	0 - 7	
Controls Engineer Technician Diploma, 6 cr						
Desktop Support Diploma, 0 - 2 cr						
Electronics Technology Diploma, 0 cr						
Engineering CAD Technology Diploma, 0 cr						
Fluid Power Engineering Technician Diploma, 0 - 3 cr						
Fluid Power Mechanic Diploma, 0 - 1 cr						

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

<p>Graphic Design: Creative Diploma 6 cr Graphic Design: Web Design Diploma 6 cr Residential Heating, Ventilation, and Air Conditioning Diploma, 0 - 2 cr Hydraulic Engineering Technician Diploma, 0 - 3 cr Interactive Designer Diploma, 3 cr Landscape Design & Construction Diploma, 0 - 4 cr Landscape/ Horticulture Diploma, 0 -4 cr Marine, Motorsport and Outdoor Power Equipment Technician Diploma, 0 - 4 cr Medium/ Heavy Truck Maintenance Technician Diploma, 0 cr .NET Programmer Diploma, 0 - 2 cr Networking Support Specialist Diploma, 0 - 7 cr Pneumatic Engineering Technician Diploma, 0 - 3 cr Tool and Die/ Moldmaking Diploma, 0 cr Video Production Spec Diploma, 3 cr Welding Diploma 0 – 6 cr</p>					
<p>COMM 1050 Communication in the Workplace (2), COMM 1131 Customer Service in Workplace (2), CCDS 1040 Job Seeking Skills (2), CPLT 1100 Computer Essen in Digital World (3), ENGL 1021 Essay Fundamentals (2), ENGL 1026 Writing for Careers (3), MATH 1007 Math for the Trades (2), MATH 1050 Math Pathways for College & Careers (4), MATH 1060 Math Pathways for College & Careers (3), MATH 1500 Beginning Algebra (3), MATH 1700 Intermediate Algebra (3), METS 1000 Computers in Manufacturing (3)</p>			Not Applicable		0
MnTC/General Education Total		0 - 7			
<p>Special Notes: MSUM will accept other MnTC credits and will transfer the same number of credits and goal areas as HTC awards. Students should work with their advisor at HTC and MSUM to choose the best general education courses to take at HTC. Note that general education courses must be MnTC courses in order to transfer.</p> <p>ENGL 2121 Writing and Research (4 cr) is equivalent to MSUM ENGL 101 English Composition I, Goal Area 1B. COMM 2130 Public Speaking (3 cr) is equivalent to MSUM COMM 100 Speech Communications, Goal Area 1A. CHEM 2000 Intro to Chemistry is equivalent to MSUM CHEM 110/110L, Goal Area 3. CHEM 2200 Essentials of General, Organic & Biochemistry is equivalent to MSUM CHEM 180/ 185, Goal Area 3. ECON 2200 Principles of Microeconomics (3 cr) is equivalent to MSUM ECON 202 Principles of Economics: Micro, Goal Area 5. ECON 2300 Principles of Macroeconomics (3cr) is equivalent to MSUM ECON 204 Principles of Economics: Macro, Goal Area 5 & 8. MATH 2200 College Algebra (4 cr) is equivalent to MSUM MATH 127 College Algebra, Goal Area 4. MATH 2150 Intro to Statistics (3 cr) is equivalent to MSU MATH 234 Intro to Probability & Statistics, Goal Area 4. PHYS 2005 College Physics I (4 cr) is equivalent to MSUM PHYS 160 College Physics I & Lab Goal Area 3. PSYC 2300 General Psychology (3 cr) is equivalent to MSUM PSY 113 General Psychology, Goal Area 5. SOC 2100 Intro to Sociology (3 cr) is equivalent to MSUM SOC 110 Intro to Sociology Goal Area 2, 5 PHIL 2100 Critical Thinking (3 cr) is equivalent to MSUM PHIL 110 Practical Reasoning Goal Area 2</p>					
SECTION B - Major, Emphasis, Restricted and Unrestricted Electives or Other					
<p>(pre-requisite courses, required core courses, required courses in an emphasis, or electives (restricted or general) within the major). <u>Restricted electives (in Major)</u> 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,</p>					

sociobiology, etc. which students can select).				
Major, Emphasis, Restricted, Unrestricted Electives or Other Courses				
Technical credits as prescribed in program				
Animation and Motion Graphic Artist Diploma, 45 cr				
Architectural Tech Diploma, 57 cr				
Auto Body Technician Diploma, 58 cr*				
Automated Machinery Sys Diploma, 53 cr*				
Mechatronics Diploma, 54 cr				
Automotive Technician Diploma, 59 cr*				
Cabinetmaking Diploma, 58 cr				
Computer Numerical Control Technician Diploma, 58 cr				
Controls Engineer Technician Diploma, 52 cr				
Desktop Support Diploma, 39 cr				
Electronics Technology Diploma, 53 cr				
Engineering CAD Technology Diploma, 56 cr				
Fluid Power Engineering Technician Diploma, 60cr				
Fluid Power Mechanic Diploma, 30 cr				
Graphic Design: Creative Diploma 55 cr*				
Graphic Design: Web Design Diploma 55 cr*				
Residential Heating, Ventilation, and Air Conditioning Diploma, 31 cr*				
Hydraulic Engineering Technician Diploma, 58 cr*				
Interactive Designer Diploma, 49 cr		Technical Credits as prescribed in the program	30	
Landscape Design & Construction Diploma, 56 cr*				
Landscape/ Horticulture Diploma, 56 cr*		Additional credits up to 18 will be applied as unrestricted elective credits**	Up to 18	
Marine, Motorsport and Outdoor Power Equipment Technician Diploma, 57 cr				
Medium/ Heavy Truck Maintenance Technician Diploma, 39 cr				
.NET Programmer Diploma, 34 cr				
Network Support Specialist Diploma, 37 cr*				
Pneumatic Engineering Technician Diploma, 58 cr				
Tool and Die/ Moldmaking Diploma, 58 cr				
Video Production Spec Diploma, 55 cr*				
Welding Diploma, 49 cr				
ACCT 1125 Excel (3), ARET 2520 Industrial Safety (2), CMAE 1514 Safety Awareness (2), LNDC 1110 Intro to Landscape/Horticulture Careers (1) *No more than 4 credits for an internship or on-the-job experience will be counted as technical.		Not Applicable	0	
Major, Emphasis, Unrestricted Electives Total	30 - 60	Total College Credits Applied (sum of sections A and B)	30 - 54	

Special Notes: * No more than 4 credits for an internship will transfer. ** No more than 48 technical credits will be applied as elective credit. If the program doesn't have that many technical credits, that lower number of credits will be applied.

SECTION C - Remaining University (receiving) Requirements

	course prefix, number and name	Credits
	Remaining MnTC/ LASC Goal Requirements	35 - 42
	ACCT 230 Principles of Accounting I	3
	MGMT 360 Principles of Management	3
	OM 380 Methods Improvement	3
	OM 393 Occupational Safety & Health	3
	OM 482 Quality Planning & Implementation	3
	OM 394 Computer Applications in Business	3
	OM 483 Cost Analysis	3
	OM 485 Production & Inventory Management	3
	PMGT 300 Project Management & Scheduling	3
	PMGT 385 Process Leadership	3
	ENGL 387 Technical Report Writing	3
	OM 469 Internship	3
	Electives if needed*	Up to 12
	Total Remaining University Credits²	71 - 90

Special Notes: The General Education courses listed below are required for the Operations Management BS degree. Equivalent courses can be taken at HTC (see Section A Notes). Students only need to select two science courses (one course must include a lab and the other must include a lab like experience), one course must be from Chemistry and the other from Physics.

Choose one Chemistry course from the following:

- CHEM 102 Environmental Chemistry (3) OR
- CHEM 105 Crime Scene Science (3) OR
- CHEM 110 Fundamentals of Chemistry (3) **and**
- CHEM 110L Fundamentals of Chemistry Lab (1) OR
- CHEM 150 General Chemistry I (3) **and**
- CHEM 150L General Chemistry Laboratory I (1) OR
- CHEM 304 The Environment and You (3)
- PHYS 160 College Physics I (3) **and**
- PHYS 160L College Physics I Lab (1)
- ECON 202 Principles of Economics I: Micro (3)
- MATH 127 College Algebra (3)
- MATH 234 Introduction to Probability and Statistics (3)

*Number of elective credits required is the amount necessary to bring the total of credits earned to 120 varies.

SECTION D - Summary of Total Program Credits

College (sending) Credits		University (receiving) Requirements	
MnTC/General Education	0 - 7		
Major, Emphasis, Unrestricted Electives or Other	30 - 60		
Total College Credits	34 - 66	Total College Credits Applied	30-54
		Remaining credit to be taken at the university (receiving institution)	71-90
		Total Program Credits	120 - 125

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
Interim Chief Academic Officer	Dara Hagen	<i>Dara Hagen</i>	5/19/16
University	Name	Signature	Date
Department Chairperson	Pam McGee	<i>PMcGee</i>	5/31/16
Academic Dean	Dr. Marsha Weber	<i>Marsha Weber</i>	6-7-16
Chief Academic Officer	Dr. Joseph Bessie	<i>Joseph Bessie</i>	6/8/16
DARS Encoder	<i>Jolene Richardson</i>	<i>Jolene Richardson</i>	2/13/17
Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.			