



**TRANSFER GUIDE - ASSOCIATE DEGREE PROGRAMS**

**NTC Program: ELECTROMECHANICAL**

**MN State Moorhead Program: Operations Management**

**Minimum GPA for admission: 2.0**

**Initial effective date:**

**General Education Courses**

NTC			MSU Moorhead		
Course No.	Course Title	Credits	Course No.	Course Title/Field	Credits
10-804-195	College Algebra with Apps (3 cr.) <u>OR</u>	3		MATH 127 College Algebra*	0 - 3
10-804-118	Intermediate Algebra with Apps (4 cr.)			NA	
10-806-143	College Physics 1	3		NA	
10-806-144	College Physics 2	3		NA	
10-801-196	Oral/Interpersonal Comm	3		COMM 100 Speech Communication	3
10-801-195	Written Communication <u>OR</u>	3		Goal Area 1B	3
10-801-136	English Composition 1			ENGL 101 English Composition I	
10-809-195	Economics <u>OR</u>	3		ECON 100 The American Economy	3
10-809-196	Intro to Sociology			SOC 110 Intro to Sociology	
10-809-198	Intro to Psychology <u>OR</u>	3		PSY 113 General Psychology	3
10-809-199	Psychology of Human Relations			Goal Area 5	
<b>Total general education credits earned:</b>		<b>21</b>			
Total transferable general education credits:		12 to 15		<b>Total general education credits accepted:</b>	<b>12 - 15</b>

**Occupational Courses**

Course No.	Course Title	Credits	Course No.	Course Title	Credits
10-103-242	Excel 2016 Level 1	1		NA	
10-103-243	Word 2016 Level 1	1		NA	
10-620-172	Industry Workplace Safety	1		NA	
10-605-170	Digital Electronics 1: Logic Fundamentals	1			
10-660-118	Electrical Fabrication	1			
10-612-120	Fluid Power Systems 1: Fundamentals	1			
10-612-121	Fluid Power Systems 2: Fundamentals of Pneumatics	1			
10-612-122	Fluid Power Systems 3: Design & Maintenance	1			
10-623-179	Interpreting Engineering Drawings	2			
10-660-112	DC 1: Electrical Circuit Fundamentals	1			
10-660-113	DC 2: Basic Circuit Analysis	1			
10-620-171	AutoCAD for Technicians	1			

10-620-170	Intro to Solidworks CADD	1			
10-605-171	Digital Electronics 2: Seq Logic & Op Amplifiers	1			
10-605-172	Electronic Devices & Circuits 1	1			
10-605-173	Electronic Devices & Circuits 2	1			
10-660-121	Intro to Microcontrollers	1			
10-620-151	Machine Control 1: Ladder Logic Fund	1			
10-620-152	Machine Control 2: Motor & Actuator Control	1			
10-620-153	Machine Control 3: Sensors & Machine Safety	1			
10-620-157	Mechanical Systems 1: Basic Machine Comp	1			
10-620-158	Mechanical Systems 2: Power Trans Systems	1			
10-620-159	Industrial Motors 1: Elecctric Motors & Generators	1			
10-660-122	Electrical Systems	1			
10-660-116	AC 1: Circuit Fundamentals	1			
10-660-117	AC 2: Circuit Analysis	1			
10-420-101	Intro to Machine Shop	2			
10-620-154	Robot App 1: Fundamentals of Robotic Control	1			
10-620-155	Robot App 2: Robotic System Comp & Software	1			
10-620-156	Robo App 3: Automated Robot Cont Sys Interfacing	1			
10-620-160	Industrial Motors 2: DC/AC Var Speed Motor Dr	1			
10-620-161	Servo Sys 1: Fund of Position Control	1			
10-620-162	Servo Sys 2: Components & Systems	1			
10-620-163	Servo Sys 3: Auto Pos Control Sys Interfacing	1			
10-620-164	PLC 1: PLC Fudamentals And Bit Basd Instruction	1			
10-620-165	PLC 2: Timers, Counters, And Program Control	1			
10-620-166	PLC 3: Data, Math, Sequencer And Shift Instructions	1			
10-620-167	PLC 4: Advanced Instructions	1			
10-442-101	Intro to Welding	2			
10-620-145	Electromechanical Projects	3			
10-620-168	PLC 5: Industrial Networking	1			
10-620-169	PLC6: PLC, PAC And PC Automation Integration	1			
	<b>Total occupational course credits earned:</b>	<b>47</b>		<b>Total occupational course credits accepted:</b>	<b>44</b>
	<b>Total credits required for graduation:</b>	<b>68</b>			
	<b>Total transferable credits:</b>	<b>56 - 59</b>		<b>Total credits accepted at MSU Moorhead:</b>	<b>56 - 59</b>

Technical credits accepted in transfer as a block. Additional credits will be accepted as unrestricted elective credits.

30 + 14

**Courses needed to complete degree at MSU Moorhead:**

Course No.	Course Title	Credits
ACCT 230	Principles of Accounting I	3

\* If College Algebra (10-804-195) is completed at NTC then the credits will satisfy Math 127 at MSU Moorhead.

ENGL 387	Technical Report Writing	3
MGMT 260	Principles of Management	3
OM 380	Methods Improvement	3
OM 393	Occupational Safety & Health	3
OM 483	Cost Analysis	3
OM 395	Computer Applications for Technologists	3
OM 469	Internship	3
OM 482	Quality Planning & Implementation	3
OM 485	Production & Inventory Management	3
PMGT 385	Process Leadership	3
PMGT 300	Project Management & Scheduling	3
MATH 127	College Algebra*	0 - 3
MATH 234	Intro to Probability & Statistics	3
ECON 202	Principles of Economics I: Micro	3
	MnTC/ Gen Ed Goal Area	27 - 30
<b>Total credits needed at MSU Moorhead to complete degree:</b>		<b>72</b>

Disclaimer: Students planning to transfer should contact NTC's Transfer Specialist and transfer personnel at MSU Moorhead for the most current transfer information.

Updated on: 06/09/17