

**Transfer Articulation Agreement for 2+2 BS Degree
Industrial Technology-General Technology**

**Memorandum of Cooperation Between
Moorhead State University &
Minneapolis Community & Technical College**

1. Introduction

Providing students with quality educational opportunities is a mission of both Moorhead State University and Minneapolis Community & Technical College. The General Technology program emphasis, within the Industrial Technology BS degree, is designed to accommodate transfer of students who have earned an Associate of Applied Science degree, Associate of Science degree, or a technical diploma from an accredited institution in a field of study related to Industrial Technology. The core reason for this document is to establish a process to accommodate the transfer of the technically oriented credits, in the designated technical programs at Minneapolis Community & Technical College to the BS degree in Industrial Technology-General Technology at Moorhead State University.

2. Transfer Guidelines and Policies

2.1. Credit Transfer-Articulated Programs:

The evaluation and transfer of earned college credits shall be in full compliance with the Minnesota State Colleges and Universities' Board of Trustees -- Policy Section 3-1 and all other state and federal educational policies pertaining to undergraduate credit transfer. Current students and graduates, who have earned degrees or diplomas from Minneapolis Community & Technical College, shall be eligible for credit evaluation under the terms of this agreement. Programs eligible for transfer under this articulation agreement are listed in section 3.1 of this document. The General Technology program (Industrial Technology BS Degree) allows for a transfer of technical credits and recognizes these courses as comprising a cohesive set, which constitute a technical area of expertise. MSU's transfer specialist will evaluate the transferring students transcript and accept those courses approved for liberal arts transfer.

2.1.1 Associate of Applied Science Degree Transfers:

AAS degree graduates will generally transfer a minimum of 64 semester credit hours.

2.1.1.1 Technical Program Area Credits:

For those programs listed in this agreement, it is expected that a minimum of 30 technical area semester credits will be placed in the Industrial Technology -- General Technology major as the technical specialty. Any remaining technical program area credits will transfer as a block to become general, or "free" elective credits, and will count toward the 128semester credit hour graduation requirement

2.1.1.2 General Education-Liberal Arts Credits:

MSU's transfer specialist will evaluate the transferring student's transcript and accept those courses approved for liberal arts transfer.

**Transfer Articulation Agreement for 2+2 BS Degree
Industrial Technology-General Technology**

2.1.1.3 Other Transfer/Graduation Requirements:

Each student graduating from Moorhead State University is expected to have completed at least one-third of his or her BS degree courses as upper-division courses. In addition, for Moorhead State University to grant the BS degree, a minimum of 30 semester credits must have been earned at MSU and all MSU applicable graduation requirements must be met.

2.1.2 Diploma Program Transfers:

Diploma program graduates will generally transfer a minimum of 45 semester credits.

2.1.2.1 Technical Program Area Credits:

For those diploma programs listed in this agreement, it is expected that a minimum of 30 technical area semester credits will be placed in the Industrial Technology -- General Technology major as the technical specialty. Remaining technical program area credits will transfer as a block to become general, or "free" elective credits, and will count toward the 128-semester credit hour graduation requirement

2.1.2.2 General Education-Liberal Arts Credits:

MSU's transfer specialist will evaluate the transferring students transcript and accept those courses approved for liberal arts transfer.

2.1.2.3 Other Transfer/Graduation Requirements:

Each student graduating from Moorhead State University is expected to have completed at least one-third of his or her BS degree courses as upper-division courses. In addition, for Moorhead State University to grant the BS degree, a minimum of 30 semester credits must have been earned at MSU and all MSU applicable graduation requirements must be met

3 Articulated Programs, Timelines, and Signatures

3.1 Articulated Programs:

After reviewing the program materials, the Department of Technology faculty and the faculty of the listed programs agree that these programs meet the definition of Industrial Technology and are appropriate for transfer.

•Manufacturing Technology

Architectural Technology	Diploma
Machine Tool Technologies	Diploma
Patternmaking / Modelmaking	Diploma
Refrigeration, Air Conditioning, and Heating Service	AAS, Diploma

• Construction

Cabinetmaking	AAS, Diploma
Construction Electricity	Diploma

**Transfer Articulation Agreement for 2+2 BS Degree
Industrial Technology-General Technology**

• **Automotive**

Automotive Mechanics	Diploma
Aviation Mechanics	Diploma

• **Computer & Electronics**

Computer Programming	AAS, Diploma
Computer Support and Network Administration	AAS, Diploma

3.2 Articulation Agreement Review

The Vice President of Academic Affairs at Moorhead State University, or designee, and the Vice President of Academic Affairs at Minneapolis Community & Technical College, or designee, shall periodically review this memorandum of understanding for articulated transfer. Additions or approved articulated programs will follow the same process as those approved initially. Programs may be added or deleted by mutual consent and initialing changes by CEOs of Moorhead State University and Minneapolis Community & Technical College. The date of implementation will be considered the date signed by both CEO's.

3.3 Signatures:

_____Signature Present _____
President

Date 7-30-99
Moorhead State University

_____Signature Present _____
President

Date 4-15-98
Minneapolis Community and Technical College

2+2 Technical Management General Technology Industrial Technology

The General Technology option, within the Industrial Technology B.S. degree, is designed for transfer students who have earned an Associate of Applied Science degree, an Associate of Science degree, or a technical diploma from an accredited institution in a field of study related to Industrial Technology. Students transferring into the General Technology option complete the Industrial Technology Core Curriculum, MSU's Liberal Studies requirements and the 43-semester credit hour upper-division course requirement in completing the General Technology IT option.

Liberal Studies Requirements** (Minimum of 45 credits)

A. English (Minimum of 6 cr.)

English 101 or equivalent
English 102 or equivalent

B. Natural Sciences & Their Processes (6 cr.)

(Minimum of 6 semester credits in Chemistry and/or Physics with one lab science course)

C. Behavioral & Social Sciences (6 cr.)

Economics

D. Western Tradition: Humanities & Fine Arts (6 cr.)

D1- _____

E. Communicative & Symbolic Processes (6 cr.)

Probability and Statistics
College Algebra
Technical Report Writing

F. Multicultural & Global Studies (5 cr.)

F1 _____

Cr Gr

___ ___
___ ___

___ ___
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___ ___
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General Technology Curriculum (60 credits)

Industrial Technology Core Curriculum (27 credits)

Tech 380 Methods Improvement
Tech 383 Cost Analysis
Tech 385 Process Leadership
Tech 394 Computer Appl. For Engr. & Tech.
Tech 428 Project Management
Tech 482 Quality Planning/Implementation
Tech 493 Industrial Safety/Health
Acct 230 Principles of Accounting I
Mgmt 360 Principles of Management

Tech 469 Internship

Industrial Technology Core (from MSU):

Technical Block (minimum of 30 technical transfer credits from technical area)

- **Total Program Credits:** 60
- 300/400 Electives*** 10

Cr Gr

3 ___
3 ___

3 ___
3 ___
3 ___

3 ___
3 ___
3 ___

3 ___

30

30

Students identifying Industrial Technology -- General Technology as their intended major at Moorhead State University may transfer up to 48 technical area credits. A minimum of 30 credits will be applied to the technical portion of the IT major. Any remaining technical transfer credits may be transferred as a block and designated as "free electives." **This 2+2 BS program, the first approved by MnSCU for block credit transfer, recognizes the technical courses as a cohesive set of courses with stated educational outcomes.** General Education credits will be evaluated and transferred, if appropriate for Liberal Arts or free electives. If the student changes his/her declared major after admission to the General Technology IT option, the MnSCU rule, which allows for 16 transfer credits, would automatically apply and the transcript will be reevaluated by the departmental faculty of the new declared major

*Enrolling in 300 level courses as part of the Liberal Studies requirements will assist students in meeting the Liberal Studies requirements, as well as meeting the 43 upper-division credit graduation requirement. Enrolling in 300 and 400 level courses is required and students should consult with their advisor for appropriate course selection.

**Moorhead State University's Liberal Studies Requirements -- Check with your advisor or college transfer specialist for appropriate transfer course selections as the General Education portion of the two-year technical program of study. The courses listed are required to meet accreditation guidelines.

08/02/99

Suggested Course Sequencing: General Technology

JUNIOR YEAR

Fall Semester:

Elective	3 cr
Tech 380-Methods Improvement	3 cr
Acct 230-Principles of Accounting 1	3 cr
Math 134-Elem. Prob & Statistics	4 cr
Elective	3 cr
Total	16 cr

Spring Semester:

Tech 394-Computer Applications	3 cr
Tech 383-Cost Analysis	3 cr
Engl 387-Technical Report Writing	4 cr
Mgmt 360-Principles of Management	3 cr
Elective	4 cr
Total	16 cr

SUMMER SESSION

Tech 469-Intemship	3 cr
Total	3 cr

SENIOR YEAR

Fall Semester:

Elective	3 cr
Tech 385-Process Leadership	3 cr
Tech 493-Industrial Safety/Health	3 cr
Elective	3 cr
Elective	3 cr
Total	15 cr

Spring Semester:

Elective	2 cr
Tech 428-Project Management	3 cr
Tech 482-Quality Planning/Implementation	3 cr
Elective	3 cr
Elective	3 cr
Total	14 cr

The Industrial Technology degree prepares technical and/or technical management-oriented professionals for employment in business, industry, education, and government. The curriculum provides for:

1. Application of knowledge of theories, concepts, and principles found in the humanities and social and behavioral sciences, including a thorough grounding in communication skills.
2. Understanding of the theories and the ability to apply the principles and concepts of mathematics and science and the integration of computer applications.
3. Application of concepts derived from, and current skills developed in, a variety of technical and related disciplines including, but not limited to, materials and production processes, industrial management, electronics, graphics, communications, computer applications, and industrial safety.
4. Specialization in a technological field: Construction Management, Industrial Distribution, Industrial Management, General Technology, or other industrially related technical areas.

National Association of Industrial Technology's Definition of Industrial Technology

Minneapolis Community and Technical College Articulated Programs

The following programs Minneapolis Community and Technical College have been reviewed and selected for inclusion in a transfer articulation agreement with Moorhead State University, which streamlines technical credit transfer into MSU's Industrial Technology General Technology option. MSU's transfer specialist will evaluate the transferring student's transcript for General Education credits for transfer into MSU Liberal Arts requirement. If a student feels their transcript was not evaluated properly they are asked to contact the Department of Technology Office, their faculty advisor, or the Registrar's Office for further review.

Manufacturing Technology

Architectural Technology
Machine Tool Technologies
Patternmaking / Modelmaking
Refrigeration, Air Conditioning,
and Heating Service

Diploma
Diploma
Diploma
AAS, Diploma

Construction

Cabinetmaking
Construction Electricity

AAS, Diploma
Diploma

Automotive

Automotive Mechanics
Aviation Mechanics

Diploma
Diploma

Computer & Electronics

Computer Programming
Computer Support and
Network Administration

AAS, Diploma
AAS, Diploma

GENERAL TECHNOLOGY

2 + 2 Transfer of Associate of Science (AS) Degree

The General Technology option, within the Industrial Technology B.S. degree, is designed for those with an earned Associate of Science degree from an accredited Minnesota Community College in a field of study related to Industrial Technology. Transfer students will complete the Industrial Technology Core Curriculum and MSU's Liberal Studies requirements of 45 semester credits, while meeting the 43 semester hour upper-division course requirement. AS graduates will transfer a minimum of 64 semester hours, which includes 30-34 semester hours in a technical area and approximately 30 semester hours in Liberal Studies.

Liberal Studies Requirements

(Minimum of 45 credits)

A. English (Minimum of 6 cr.)

	Cr	Gr
English 101 Transfer from technical college	___	___
English 102 Composition and Literature II	4	___

B. Natural Sciences & Their Processes (6 cr.)

_____	___	___
_____	___	___
_____	___	___

C. Behavioral & Social Sciences (6 cr.)

_____	___	___
_____	___	___

D. Western Tradition: Humanities & Fine Arts (6 cr.)

D1- _____	___	___
_____	___	___

E. Communicative & Symbolic Processes (6 cr.)

Math 134 Intro to Probability and Statistics	4	___
Engl 387 Technical Report Writing	4	___
_____	___	___

F. Cultural Diversity/Non-Western Studies (6 cr.)

F1 Cultural Diversity _____	3	___
_____	___	___

General Technology Curriculum

(65 credits)

Industrial Technology Core Curriculum

(32 credits)

	Cr	Gr
Tech 380 Methods Improvement	3	___
Tech 383 Cost Analysis	3	___
Tech 385 Process Leadership	3	___
Tech 394 Computer Appl. For Engr. & Tech.	3	___
Tech 412 Senior Project	3	___
Tech 428 Project Management	3	___
Tech 482 Quality Planning/Implementation	3	___
Tech 493 Ind Safety/Accident Prev	3	___
Acct 230 Principles of Accounting I	3	___
Acct 231 Principles of Accounting II	3	___
Mgmt 360 Principles of Management	3	___

Tech 469 Internship	3	___
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General Technology Program (from MSU):	35	
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AS Technical Block (minimum of 30 technical transfer credits from AS degree)	30	
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Total Program Credits: 65

300/400 Electives* 10

* The student may choose from two options to complete his/ her B.S. degree:

- 1) You can take 5 credits of the 300/400 Electives as part of the Liberal Studies requirements. By doing this you meet the Liberal Studies requirements, as well as meeting the minimum of 43 upper-division credit requirement.
- 2) You may instead opt to take additional non-Liberal Studies 300/400 level electives and still meet the Liberal Studies requirements by completing more lower-division courses. If you choose this option, additional coursework of at least 5 credits beyond the 128 credit graduation requirement may be needed to complete your degree at Moorhead State University. An example might be if you elect to earn a minor in Management or Marketing.

COURSE SEQUENCING: GENERAL TECHNOLOGY

JUNIOR YEAR:

Fall Semester:

Engl 102 Comp. and Lit. II	4 cr
Tech 380 Methods Improvement	3 cr
Acct 230 Prin. of Accounting 1	3 cr
Math 134 Elem. Prob & Statistics	4 cr
Elective	2 cr
Total	16 cr

Spring Semester:

Tech 394 Computer Applications	3 cr
Acct 231 Prin. of Accounting 11	3 cr
Engl 387 Tech. Report Writing	4 cr
Mgmt 360 Principles of Management	3 cr
Elective	4 cr
Total	16 cr

SUNIMER

Tech 469 Internship	3 cr
Total	3 cr

SENIOR YEAR:

Fall Semester:

Tech 383 Cost Analysis	3 cr
Tech 385 Process Leadership	3 cr
Tech 493 Inds. Safety	3 cr
Elective	3 cr
Elective	3 cr
Total	15 cr

Spring Semester:

Tech 412 Senior Project	2 cr
Tech 429 Project Management	3 cr
Tech 482 Qual. Plan/imp.	3 cr
Elective	3 cr
Elective	3 cr
Total	14 cr

TOTAL CREDITS= 64

The **Industrial Technology** degree prepares technical and/or technical management-oriented professionals for employment in business, industry, education, and government. The curriculum provides for:

- I Application of knowledge of theories, concepts, and principles found in the humanities and social and behavioral sciences, including a thorough grounding in communication skills.
2. Understanding of the theories and the ability to apply the principles and concepts of mathematics and science and the integration of computer applications.
3. Application of concepts derived from, and current skills developed in, a variety of technical and related disciplines including, but not limited to, materials and production processes, industrial management, electronics, graphics, communications, computer applications, and industrial safety.
4. Specialization in a technological field of: Construction Management, Industrial Distribution, Industrial Management, or General Technology.