

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

**Memorandum of Cooperation Between  
Moorhead State University & Lake Superior College**

## **1 Introduction**

Providing students with quality educational opportunities is a mission of both Moorhead State University and Lake Superior 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 Lake Superior 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 Lake Superior 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 student's 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 128 semester 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 student's 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 program agree that these programs meet the definition of Industrial Technology and are appropriate for transfer.

- **Computer Careers**

Computer Programmer	AAS, Diploma
Microcomputing Support Specialist	AAS
Network Specialist	AAS
  
- **Drafting & Engineering Careers**

Architectural Technology	AAS, Diploma
Civil Engineering Technology	AAS, Diploma
Computer Aided Design Engineering Technology	AAS, Diploma
  
- **Machine Tool Careers**

CNC Machine Programmer  
Toolmaker

Diploma  
Diploma

- **Trade & Technical Careers**

Building Construction  
Commercial & Residential Wiring  
Electronic Engineering Technology  
Digital Communications  
Industrial Controls  
Electronic Technology

AAS, Diploma  
Diploma  
AAS  
AAS  
Diploma

- **Transportation Careers**

Auto Body Technology  
Automotive Service Technology  
Diesel & Power Equipment

Diploma  
AAS, Diploma  
Diploma

### 3.2 Articulation! Agreement Review:

The Vice President of Academic Affairs at Moorhead State University, or designee and the Vice President of Instruction at Lake Superior 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 Lake Superior College. The date of implementation will be considered the date signed by both CEO's.

### 3.3 Signatures:

\_\_\_\_\_Signature Present\_\_\_\_\_  
President

\_\_\_\_\_Signature Present\_\_\_\_\_  
President

6-7-99\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

Moorhead State University

Lake Superior 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 \_\_\_\_\_

### 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:**

**300/400 Electives\***

Cr Gr

3 \_\_\_\_

3 \_\_\_\_

3 \_\_\_\_

3 \_\_\_\_

3 \_\_\_\_

3 \_\_\_\_

3 \_\_\_\_

3 \_\_\_\_

3 \_\_\_\_

3 \_\_\_\_

30

30

60

10

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.

### 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
<b>Total</b>	<b>16 cr</b>

##### 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
<b>Total</b>	<b>16 cr</b>

#### SUMMER SESSION

Tech 469-Internship	3 cr
<b>Total</b>	<b>3 cr</b>

#### SENIOR YEAR

##### Fall Semester:

Elective	3 cr
Tech 385 Process Leadership	3 cr
Tech 493 Occupational Safety & Health	3 cr
Elective	3 cr
Elective	3 cr
<b>Total</b>	<b>15 cr</b>

##### Spring Semester:

Elective	2 cr
Tech 428 Project Management	3 cr
Tech 482 Quality Planning/Implementation	3 cr
Elective	3 cr
Elective	3 cr
<b>Total</b>	<b>14 cr</b>

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

#### Articulated Programs -LAKE SUPERIOR COLLEGE

The following programs Lake Superior 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.

- **Computer Careers**

Computer Programmer	AAS, Diploma
Microcomputing Support Specialist	AAS
Network Specialist	AAS

- **Drafting & Engineering Careers**
  - Architectural Technology                      AAS, Diploma
  - Civil Engineering Technology                AAS, Diploma
  - Computer Aided Design Engineering  
Technology                                        AAS, Diploma
  
- **Machine Tool Careers**
  - CNC Machine Programmer                    Diploma
  - Toolmaker                                        Diploma
  
- **Trade & Technical Careers**
  - Building Construction                        AAS, Diploma
  - Commercial & Residential Wiring            Diploma
  - Electronic Engineering Technology
  - Digital Communications                    AAS
  - Industrial Controls                        AAS
  - Electronic Technology                    Diploma
  
- **Transportation Careers**
  - Auto Body Technology                        Diploma
  - Automotive Service Technology            AAS, Diploma
  - Diesel & Power Equipment                    Diploma

## News Release

### For Immediate Release

Tuesday, June 08, 1999

### 2+2 Transfer Agreement Signed

A transfer agreement that will allow graduates from several programs at Lake Superior College to transfer into a nationally recognized technical management BS degree program at Moorhead State University has been approved. This transfer agreement will allow students to take two years of course work at Lake Superior College and two additional years of course work at Moorhead State University culminating in a BS degree in technical management.

The articulation agreement signed by Lake Superior College President Kathleen L. Nelson and Moorhead State President Roland Barden allows technical college graduates full credit transfer for their technical course credits toward the completion of a Bachelor of Science degree in Industrial Technology (General Technology option) at Moorhead State. Lake Superior College programs in this transfer agreement include:

- **Computer Careers**
  - Computer Programmer                        AAS, Diploma
  - Microcomputing Support Specialist        AAS
  - Network Specialist                            AAS
  
- **Drafting & Engineering Careers**
  - Architectural Technology                    AAS, Diploma
  - Civil Engineering Technology                AAS, Diploma

Computer Aided Design Engineering Technology	AAS, Diploma
<b>• Machine Tool Careers</b>	
CNC Machine Programmer	Diploma
Toolmaker	Diploma
<b>• Trade &amp; Technical Careers</b>	
Building Construction	AAS, Diploma
Commercial & Residential Wiring	Diploma
Electronic Engineering Technology	
Digital Communications	AAS
Industrial Controls	AAS
Electronic Technology	Diploma
<b>• Transportation Careers</b>	
Auto Body Technology	Diploma
Automotive Service Technology	AAS, Diploma
Diesel & Power Equipment	Diploma

Demand for technical management college graduates with an extensive technical expertise and an understanding of business operations is projected to remain at a very high level. Lake Superior College's graduates will join Moorhead State's other Industrial Technology students studying career options that include Construction Management, Industrial Distribution, and Industrial Management. MSU's Industrial Technology Programs are **Minnesota's only specialized accredited BS programs in technical management.**