

MINNESOTA STATE COLLEGES AND
UNIVERSITIES*
ARTICULATION AGREEMENT
BETWEEN

Riverland Community 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 **Riverland Community 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

Auto Service Technology, Diploma, 69 credits – 47.060400

Carpentry Technology, Diploma, 64 credits – 46.020101

Collision Repair Technology, Diploma, 68 credits – 47.060300

Construction Electrician, Diploma, 74 credits – 46.030200

Diesel Technology, Diploma, 69 credits – 47.060500

Industrial Maintenance and Mechanics, Diploma, 69 credits – 47.030300

Wind Turbine Technician, Diploma, 60 credits – 46.039900

Web Developer, Diploma, 47 credits – 10.030400

(hereinafter sending programs), 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.

Transfer of Credits

- A. The receiving institution will accept **47 - 48 credits** from the sending program. A total of **77 - 80** 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 uSelect 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 **07/01/2013** and shall remain in effect until the end date of **07/01/2018** 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 **01/01/2018** (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 | | | Riverland Community College | | Minnesota State University Moorhead | | |
| Program name/ Award Type (e.g., AS)/ CIP code (8-digit) | | | Auto Service Technology, Diploma, 69 credits – 47.060400 Carpentry Technology, Diploma, 64 credits – 46.020101 Collision Repair Technology, Diploma, 68 credits – 47.060300 Construction Electrician, Diploma, 74 credits – 46.030200 Diesel Technology, Diploma, 69 credits – 47.060500 Industrial Maintenance and Mechanics, Diploma, 69 credits – 47.030300 Wind Turbine Technician, Diploma, 60 credits – 46.039900 Web Developer, Diploma, 47 credits – 10.030400 | | Operations Management, BS, 120 credits, 52.020500 | | |
| Aware Type (e.g., AS) | | | Diploma | | BS | | |
| Credit Length | | | 60-72 | | 120 | | |
| CIP code (6-digit) | | | 47.030300 | | 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) | | |
| Instructions | | | | | | | |
| <ul style="list-style-type: none"> 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. <p style="text-align: center;">(To add rows, place cursor outside of the end of a row and press enter.)</p> | | | | | | | |
| SECTION A - Minnesota Transfer Curriculum-General Education | | | | | | | |
| College (sending) | | | | MSUM University (receiving) | | | |
| course prefix, number and name | Goal(s) ¹ | Credits | | course prefix, number and name | Goal(s) ¹ | Credits | Equiv |

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

| | | | | | | |
|--|------|-------|--------------------------------|------|---------|--------------|
| (The following courses are requirements of the BS degree, but may not be required of the diploma or associate's programs. Students are encouraged to take these courses within their AS, AAS, or Diploma program.) | | | | | Applied | Sub Wav |
| Minnesota Transfer Curriculum-General Education | | | | | | |
| General Education Requirement* | 1-10 | 0 - 3 | MNTC General Education courses | 1-10 | 0 - 3 | Equiv Or Sub |
| MnTC/General Education Total | | 0 - 3 | | | | |

Special Notes, if any: *Students should work with their advisor at RCC and also MSU Moorhead to choose best general education courses to take at RCC. MSUM will accept all MnTC credits within the Diploma and will transfer the same number of credits and goal areas Riverland Community College awards.

**** If students takes equivalencies of these courses at Riverland Community College, fewer MNTC credits will be required in MSU – Moorhead's program:**

- CHEM 1201 – General Chemistry I is equivalent to MSUM CHEM 150 and 150L General Chemistry (Goal 3)
- ECON 2292 - Microeconomics is equivalent to MSUM ECON 202 Principles of Economics I: Micro (Goal 5)
- MATH 1110 - College Algebra is equivalent to MSUM MATH 127 College Algebra (Goal 4)
- STAT 2021 – Fundamentals of Statistics is equivalent to MSUM MATH 234 Introduction to Probability and Statistics (Goal 4)
- PHYS 1501 – College Physics I is equivalent to MSUM PHYS 160 and 160L College Physics I (Goal 3)

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

(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 | | | |
|---|--------|--|--------------------|
| Technical credits as prescribed in program | | | |
| Auto Service Technology, Diploma, 61 credits Carpentry Technology, Diploma, 56 - 58 credits Collision Repair Technology, Diploma, 64 credits Construction Electrician, Diploma, 66 credits Diesel Technology, Diploma, 63 credits Industrial Maintenance and Mechanics, Diploma, 63 credits Wind Turbine Technician, Diploma, 52 credits Web Developer, Diploma, 44 credits | 44 -64 | Technical Credits as prescribed in the program Additional credits up to 18 will be applied as unrestricted elective credits | 30 Up to 18 |
| General Studies Courses ((DESL, GSCL, GSCM, HLTH, MATH)) | varies | Not applicable | 0 |
| Major, Emphasis, Unrestricted Electives Total | 47-64 | Total College Credits Applied (sum of sections A and B) | 44 -48 |

Special Notes, if any: No more than 48 technical credits will be applies 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 |
|--|---------|
| ACCT 230 Principles of Accounting I (3) | 3 |
| ENGL 387 Technical Report Writing (4) | 4 |
| MGMT 360 Principles of Management (3) | 3 |
| TECH 380 Methods Improvement (3) | 3 |
| TECH 383 Cost Analysis (3) | 3 |
| TECH 385 Process Leadership (3) | 3 |
| TECH 394 Computer Applications for Technologists (4) | 4 |
| TECH 428 Project Management (3) | 3 |
| **TECH 469 Internship (3-12) | 3 |

| | | |
|--|--|--------------|
| | TECH 482 Quality Planning and Implementation (3) | 3 |
| | TECH 485 Production and Inventory Management (3) | 3 |
| | TECH 493 Occupational Safety and Health (3) | 3 |
| | *MNTC remaining in Gen Ed goal areas and credits | 39 - 42 |
| | Total Remaining University Credits | 77-80 |

Special Notes, if any:

*The General Education courses listed below are required for the Operations Management BS degree. Equivalent courses can be taken at Riverland Community College (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)

****Other suitable course exceptions to be handled by the OM faculty after enrollment**

Number of credits in TECH 469 will be based upon how many credits a student needs to obtain the required 40 upper-division credits to receive the degree.

| SECTION D - Summary of Total Program Credits | | | |
|--|--------------|---|-----------------|
| College (sending) Credits | | University (receiving) Requirements | |
| MnTC/General Education | 0 - 3 | | |
| Major, Emphasis, Unrestricted Electives or Other | 44 - 64 | | |
| Total College Credits | 47-74 | Total College Credits Applied | 44 - 48 |
| | | Remaining credit to be taken at the university (receiving institution) | 77 - 80 |
| | | Total Program Credits | 124 -128 |

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 |
|------------------------|---------------------|------------------------|---------|
| Chief Academic Officer | Mary Davenport | <i>Mary Davenport</i> | 6-13-13 |
| Academic Dean | Matt Bissonette | <i>Matt Bissonette</i> | 6/13/13 |
| University | Name | Signature | Date |
| Department Chairperson | Pam McGee | <i>Pam McGee</i> | 7/10/13 |
| Academic Dean | Dr. Marsha Weber | <i>Marsha Weber</i> | 7/10/13 |
| Chief Academic Officer | Dr. Anne Blackhurst | <i>Anne Blackhurst</i> | 2/12/13 |

| | | | |
|--|------------------|--|---------|
| DARS Encoder | Tara Spletstoser |  | 7/31/13 |
| Date when equivalencies were encoded in DARS by the receiving MnSCU institution. | | | |

4/9/13



Minnesota State University Moorhead Operations Management



Start working toward your B.S. degree in Operations Management while finishing your Technical AAS, AS, or Diploma

Operations Management (OM)

Operations managers manage people, projects and processes, directing the physical and/or technical functions of a firm or organization, particularly those relating to service management, product development, production and manufacturing. They are generally involved in directing workflow, plant management, manufacturing and production systems, production control, employee management, strategic manufacturing policy, productivity analysis, cost control and materials planning.

Get a (Great) Job

OM graduates are working in most industries— Software & Hardware, Manufacturing, Healthcare, Technology, Electronics, HVAC, Robotics, Medical Services, Transportation and more.

Job Title

- ▶ Supply Management Specialist
- ▶ Site Supply Chain Manager
- ▶ Assistant Store Manager
- ▶ Test Engineer
- ▶ Production Planner
- ▶ Assistant Operations Manager
- ▶ Sr. Principal Process Technician
- ▶ Technical Support Rep.
- ▶ Manufacturing Engineer
- ▶ Team Lead
- ▶ Team Lead, IT
- ▶ Continuous Improvement Mgr
- ▶ Heating Plant Shift Supervisor
- ▶ Product Transfer Coordinator
- ▶ Inventory Control Specialist
- ▶ Heating Plant Shift Spvrs
- ▶ Project Manager
- ▶ Quality Engineer

Company

- ▶ Phoenix International
- ▶ Essentia Health
- ▶ Verizon Wireless
- ▶ Case New Holland
- ▶ Case New Holland
- ▶ Igulim, LLC
- ▶ Medtronic
- ▶ Integrity Windows
- ▶ Bobcat Company
- ▶ UPS
- ▶ Colorado State Univ
- ▶ Blackhawk MFG
- ▶ Univ of North Dakota
- ▶ John Deere
- ▶ Fairview Health Service
- ▶ North Dakota State Univ
- ▶ Missouri River Contracting
- ▶ Global Electric Motorcars

Excellent Transfer Program

MSU Moorhead's 2+2 Operations Management Degree is a true four-year degree. Our 2+2 OM program lets you transfer your AS, AAS, or Diploma (from a Technical field) into the OM Bachelor of Science degree, and in just two more years you can complete your B.S. in Operations Management, developing your management, leadership, and business skills to complement your Technical skills.

OM Program Benefits

- ▶ **Coursework:** Late afternoon, early evening classes, or online with all core OM courses offered in 8-week sessions
- ▶ **Excellent job placement:** MSUM's OM graduates often receiving multiple job offers and earning more with a four year degree—significantly more.
- ▶ **Customized Faculty advising:** Whether online or face to face, the faculty employs multiple means to engage with you on career opportunities, course selection, and registration. You pick the mode: Face to Face, Skype, Email, and Telephone.
- ▶ **Designed for Working or Busy Professionals:** Designed for traditional and non-traditional students who may be working and/or busy full time. Classes are offered late afternoon, evening, and online.

Classes Delivered at:

- ▶ MSUM Moorhead Campus
- ▶ Anywhere—Completely ONLINE! Opens doors to educational opportunities and allows you to take your college where ever you go!

**Begin taking classes at your Community or Technical College
and complete a BS degree in Operations Management**

The courses listed in the table below are ATMAE accreditation requirements and need to be completed. Work with an advisor to complete these courses as part of your technical program's general education or electives. MSUM courses are in parenthesis. For course equivalents visit with your transfer specialist or go to www.transferology.com and search for equivalencies.

| Written & Oral Communication | Math & Science | Business | Other *Non MnTC |
|------------------------------|---|--|---------------------------------------|
| English Comp I (ENG101) | College Algebra (MATH 127) | Principles of Micro Economics I (ECON 202) | Principles of Accounting I (ACCT 230) |
| Speech Comm (COMM 100) | Introduction to Probability and Statistics (MATH 234) | | Principles of Mgmt (MGMT 360) |
| | College Physics with Lab (PHY 160/L) | | |
| | General Chemistry I with Lab (CHEM 150/L) | | |

2+2 Suggested Sequence* (MnTC Courses vary depending on courses transferred)

Junior Year Fall Semester

| | |
|--|------|
| OM 380 Methods (1 st 8 wks) | 3 cr |
| OM 483 Cost Analysis (2 nd 8 wks) | 3 cr |
| ACCT 230 Principles of Acct. | 3 cr |
| MATH 127 College Algebra | 3 cr |
| ENGL 387 TECH Report Wr (10 wks) | 3 cr |

Total 15 cr

Junior Year Spring Semester

| | |
|---|------|
| PMGT 385 Process Leadership (2 nd 8 wks) | 3 cr |
| OM 393 Occupational Safety (1 st 8 wks) | 3 cr |
| MATH 234 Probability and Statistics | 3 cr |
| CHEM 150/L General Chemistry I | 4 cr |
| ECON 202 Micro Economics | 3 cr |

Total 16 cr

Senior Year Fall Semester

| | |
|--|------|
| OM 394 Computers (1 st 8 wks) | 3 cr |
| OM 482 Quality Imp (2 nd 8 wks) | 3 cr |
| MnTC | 3 cr |
| MnTC | 3 cr |
| PHY 160/ L College Physics | 4 cr |

Total 16 cr

Senior Year Spring Semester

| | |
|---|------|
| OM 485 Production (2 nd 8 wks) | 3 cr |
| PMGT 300 Project Mgmt (1 st 8 wks) | 3 cr |
| MGMT 360 Principles of Mgt | 3 cr |
| MnTC | 3 cr |
| MnTC | 3 cr |

Total 15 cr

OM 469 Internship is taken after 4 OM courses have been completed. An internship of 3 - 12 credits is typically taken in the summer. If employed in a professional trade career, the Internship can be taken at place of employment. If not employed in an operations management field, the student can seek an Internship position or treat their first professional job as their internship. For more details, contact Program Coordinator Pam McGee.

For further information contact:

Pam McGee
 Department Chair
 Operations Management
 218.477.2466
mcgeepa@mnstate.edu

Jan Atchison
 Department Secretary
 MSU Moorhead
 218.477.2104
atchison@mnstate.edu