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**B.S. Operations Management** 

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FVTC Program: 100062

## Agri-Business/Science Technology to B.S. Operations Management

#### Minnesota State University Moorhead Academic Year: 2014-15

FVTC			Minnesota State University Moorhead		
Course No.	Course Title	Credits	Course No.	Course Title	Credits
	Technical Studies Courses				
10-006-103	Agricultural Marketing	3			
10-006-133	Agribusiness Overview	3			
10-006-134	Agribusiness Sales/Marketing	3			
10-003-165	Feed/Grain/Animal Waste System	2			
10-006-113	Dairy/Livestock Nutrition	3			
10-006-116	Agribusiness Work Experience	3			
10-006-119	Agricultural Crop Production	3			
10-006-140	Animal Science Fundamentals	3			
10-006-155	Nutrient Management Principles	3			
Students sele	ect 6 of these 10 courses:			Technical credits accepted in transfer as a block	30
10-006-102	Integrated Pest Management & Weed Identification	3		Additional credits will be accepted as unrestricted elective credits	14
10-006-114	Dairy/Livestock Ration Balance	3		elective credits	
10-006-141	Plant Science	3			
10-006-143	Introduction to Soils	3			
10-006-145	Dairy/Livestock Herd Health	3			
10-006-148	Dairy Genetics and Reproduction	3			
10-006-149	Dairy/Livestock Records Management	3			
10-006-150	Agronomy Equipment	3			
10-006-151	Dairy/Livestock Management	3			
10-006-165	Agronomy Business Management	3			
	Total Technical Studies Credits:	44		•	44
	General Studies Courses				
10-801-195	Written Communication	3	Goal 1B	Written Communication	3
10-801-196	Oral/Interpersonal Communication	3	Goal 1A	Oral/Interpersonal Communication	3
10-804-123	Math w Business Apps	3		Does not transfer	0
10-809-172	Introduction to Diversity Studies	3	Goal 7	Human Diversity	3
10-809-195	Economics	3	ECON 100 (Goal 2)	The American Economy	3
10-809-197	Contemporary American Society	3	Goal 5	History & the Social and Behavioral Sciences	3

10-809-199	Psychology of Human Relations	3	Does not transfer	0
Total General Studies Credits:		21		15
Suggested Electives				
10-006-105	Crop Protection and Amendments	2		
10-006-109	Crop Scouting Training	3		
10-006-110	Agribusiness Computer Application	2	Additional credits will be accepted as unrestricted	1 _
10-006-154	Precision Ag Overview	3	elective credits	' 3
10-006-157	Agriculture Energy Sources	3		
10-006-164	Dairy/Livestock Artificial Insemination & Records Management 2			
Total Electives Credits:		3		3
Total credits needed at FVTC to complete degree:		68	Total credits accepted	: 62

Notes: This plan includes non-standard requirements. Please remember to update manually.

#### \*\* Up to 12 internship credits may be earned

MSUM will transfer the same number of credits that FVTC awards. Equivalencies for General Education / Liberal Arts and Sciences Curriculum (LASC) courses are listed below:

*10-801-195	Written Communication satisfies MSUM Goal 1B
*10-801-196	(3 cr) Oral /Interpersonal Comm is equivalent to MSUM CMST 100 (3 cr) (Goal 1A)
10-806-114	General Biology satisfies MSUM Goal 3.
10-806-134	General Chemistry is equivalent to MSUM CHEM
	110/110 Fundamentals of Chemistry (Goal 3)
10-806-154	General Physics 1 is equivalent to MSUM
	PHYS 160/ 160L College Physics I (4 cr) (Goal 3)
10-809-166	Intro to Ethics: Theory & App satisfies MSUM Goal 9.
*10-809-172	Intro to Diversity Studies satisfies MSUM satisfies Goal 7
*10-809-195	Economics is equivalent to MSUM ECON 100 The American Economy (3 cr) (Goal 2)
*10-809-197	Contemporary Amer Society satisfies MSUM Goal 5.
10-809-198	Intro to Psychology is equivalent to MSUM PSY
113 (3 cr) (Go	al 5

Additional courses needed to complete degree at Minnesota State University Moorhead:						
Course No.	Course Title	Credits				
ACCT 230	Principles of Accounting I	3				
ENGL 387	Technical Report Writing	4				
MGMT 360	Principles of Management	3				
TECH 380	Methods Improvement	3				
TECH 383	Cost Analysis	3				
TECH 385	Process Leadership	3				
TECH 394	Computer Applications for Technologists	4				
TECH 428	Project Management	3				
TECH 469	Internship**	3				
TECH 482	Quality Planning and Implementation	3				
TECH 485	Production and Inventory Management	3				
TECH 493	Occupational Safety and Health	3				

General Education / Liberal Arts and Sciences Curriculum (LASC) credits required at MSU Moorhead for graduation is 42. A student transferring with their Agri-Business/Science Technology AAS would need to take up to <u>27</u> additional credits in the goal areas. Students are encouraged to consult with an MSUM advisor to choose the best general education courses to take.

62	FVTC AAS Agri-Business/Science Technology degree credits accepted:
38	MSUM degree core credits:
27	MSUM degree additional gen eds:
127	Total credits student takes to complete MSUM B.S. Operations Management:

FVTC Program: 104022

#### Aircraft Electronics to B.S. Operations Management

## Minnesota State University Moorhead

FVTC			Minnesota State University Moorhead		
Course No.	Course Title	Credits	Course No.	Course Title	Credits
	Technical Studies				
10-402-110	Aircraft Instrument Systems	3			
10-402-111	Basic Avionics Systems	3			
10-402-112	Materials and Installation	3			
10-402-114	Avionics Communications	3			
10-402-124	Aeronautics, Introduction to	3			
10-402-140	Avionics Control Systems	2			
10-402-143	Avionics Surveillance Systems	3			
10-402-160	Aircraft Electrical Power	3		Technical credits accepted in transfer as a block	20
10-402-161	Aviation Regulations & Publications	2			30
10-402-163	Aircraft Electrical Systems	3			
10-402-166	Maintenance Forms & Records	1			
10-402-167	Technical Drawings & Diagrams	1		Additional credits will be accepted as unrestricted elective credits	12
10-402-169	Avionics Navigational Systems	3			
10-620-103	DC Circuits 3 - Aircraft/Electromechanical	1			
10-660-110	DC Circuits 1	1			
10-660-111	DC Circuits 2	1			
10-660-114	AC Circuits 1	1			
10-660-115	AC Circuits 2	1			
10-660-120	Solid State 1	1			
10-660-121	Solid State 2	1			
10-660-130	Digital Electronics Tech 1	1			
10-660-131	Digital Electronics Tech 2	1			
	Total Technical Studies Credits:	42			42
	General Studies				
10-801-195	Written Communication	3	Goal 1B	Written Communication	3
10-801-196	Oral/Interpersonal Communication	3	CMST 100 (Goal 1A)	Speech Communications Study	3
10-801-197	Technical Reporting	3		Does not transfer	0
10-804-113	College Technical Math 1A	3		Does not transfer	0
10-804-114	College Technical Math 1B	2		Does not transfer	0
10-806-139	Survey of Physics	3		Does not transfer	0
10-809-195	Economics	3	ECON 100 (Goal 2)	The American Economy	3

10-809-198	Intro to Psychology	3	PSY 113 (Goal 5)	General Psychology	3
	Total General Studies Credits:	23			12
Suggested Electives					
10-402-123	FCC License, Preparation for	1			
10-402-130	Avionics Co-op 1	1			
10-402-144	Installation Project 1	1			
10-402-145	Installation Project 2	1		Additional credits will be accepted as unrestricted elective credits	5
10-402-146	Installation Project 3	1			
10-402-168	Human Factors	1			
10-620-152	Industrial Solid State 1	1			
	Total Electives Credits:				5
Total credits needed at FVTC to complete degree:		70		Total credits accepted:	59

\*\* Up to 12 internship credits may be earned.

MSUM will transfer the same number of credits that FVTC awards. Equivalencies for General Education / Liberal Arts and Sciences Curriculum (LASC) courses are listed below:

\*10-801-195 Written Communication satisfies MSUM Goal 1B (3 cr)

\*10-801-196 Oral /Interpersonal Comm is equivalent to MSUM CMST 100 (3 cr) (Goal 1A)

10-806-114 General Biology satisfies MSUM Goal 3.

10-806-134 General Chemistry is equivalent to MSUM CHEM 110/110 Fundamentals of Chemistry (Goal 3)

10-806-154 General Physics 1 is equivalent to MSUM

PHYS 160/ 160L College Physics I (4 cr) (Goal 3) 10-809-166 Intro to Ethics: Theory & App satisfies MSUM

Goal 9. \*10-809-172 Intro to Diversity Studies satisfies MSUM satisfies Goal 7

\*10-809-195 Economics is equivalent to MSUM ECON 100 The American Economy (3 cr) (Goal 2)

\*10-809-197 Contemporary Amer Society satisfies MSUM Goal

10-809-198 Intro to Psychology is equivalent to MSUM PSY 113 (3 cr) (Goal 5

Additional courses needed to complete degree at Minnesota State University Moorhead:						
Course No.	Course Title	Credits				
ACCT 230	Principles of Accounting I	3				
ENGL 387	Technical Report Writing	4				
MGMT 360	Principles of Management	3				
OM 380	Methods Improvement	3				
OM 383	Cost Analysis	3				
OM 385	Process Leadership	3				
OM 394	Computer Applications for Technologists	3				
OM 428	Project Management	3				
OM 469	Internship**	3				
OM 482	Quality Planning and Implementation	3				
OM 485	Production and Inventory Management	3				
OM 493	Occupational Safety and Health	3				
General Education / Liberal Arts and Sciences Curriculum (LASC) credits required at MSU Moorhead for graduation is 42. A student transferring with their Aircraft Electronics AAS would need to take up to 30 additional credits in the goal areas. Students are encouraged to consult with an MSUM advisor to choose the best general education courses to take.						
FVTC AAS Aircraft Electronics degree credits accepted:						
MSUM degree core credits:						
MSUM degree additional gen eds:						
Total credits student takes to complete MSUM						

**B.S. Operations Management:** 

FVTC Program: 104544

#### Construction Management Technology to B.S. Operations Management

#### Minnesota State University Moorhead

FVTC			Minnesota State University Moorhead			
Course No.	Course Title	Credits	Course No.	Course Title	Credits	
	Technical Studies					
10-101-107	Accounting, Principles of	3				
10-196-191	Supervision	3				
10-455-101	Site Layout and Construction (CMT)	2				
10-455-102	Introduction to Construction Management (CMT)	1				
10-455-104	Construction Engineering Fundamentals (CMT)	3				
10-455-105	Foundation System (CMT)	2				
10-455-106	Construction Estimating (CMT)	2				
10-455-107	Construction Management Internship (CMT)	2				
10-455-108	Construction Contracts and Law (CMT)	2				
10-455-109	Construction Scheduling (CMT)	2		Technical credits accepted in transfer as a block	30	
10-455-111	Structural Systems (CMT)	2			30	
10-455-112	Exterior Enclosure Systems (CMT)	2				
10-455-113	Construction Project Management (CMT)	2		Additional credits will be accepted as unrestricted elective credits	11	
10-455-115	Computer-Integrated-Construction (CMT)	2				
10-455-116	Sustainable Design and Construction (CMT)	2				
10-455-118	Interior Building Finishes (CMT)	2				
10-455-120	Revit Architecture (CMT)	2				
10-455-121	Understanding Construction Drawings (CMT)	1				
10-455-122	Introduction to AutoCAD, Architecture (CMT)	2				
10-455-123	Construction Financial Management (CMT)	2				
10-455-125	Construction Management Field Study	1				
10-455-126	Mechanical, Electrical & Plumbing Systems (CMT)	3				
10-455-127	Construction Safety Management (CMT)	2				
	Total Technical Studies Credits:	47			41	
General Studies						
10-801-195	Written Communication	3	Goal 1B	Written Communication	3	
10-801-196	Oral/Interpersonal Communication	3	CMST 100 ( Goal 1A)	Speech Communications	3	
10-801-197	Technical Reporting	3	(	Does not transfer	0	
10-804-113	College Technical Math 1A	3		Does not transfer	0	

Total credits needed at FVTC to complete degree:		70		Total credits accepted:	50
Total General Studies Credits:		23			9
10-809-199	Psychology of Human Relations	3		Does not transfer	0
10-809-195	Economics	3	ECON 100 (Goal 2)	The American Economy	3
10-806-143	College Physics 1	3		Does not transfer	0
10-804-114	College Technical Math 1B	2		Does not transfer	0

\*\* Up to 12 internship credits may be earned.

MSUM will transfer the same number of credits that FVTC awards. Equivalencies for General Education / Liberal Arts and Sciences Curriculum (LASC) courses are listed below:

*10-801-195	Written Communication satisfies MSUM Goal 1B (3 cr)
*10-801-196	Oral /Interpersonal Comm is equivalent to MSUM CMST 100 (3 cr) (Goal 1A)
10-806-114	General Biology satisfies MSUM Goal 3.
10-806-134	General Chemistry is equivalent to MSUM CHEM 110/110 Fundamentals of Chemistry (Goal 3)
10-806-154	General Physics 1 is equivalent to MSUM

10-809-166 Intro to Ethics: Theory & App satisfies MSUM Goal 9.

\*10-809-172 Intro to Diversity Studies satisfies MSUM satisfies Goal 7

PHYS 160/ 160L College Physics I (4 cr) (Goal 3)

\*10-809-195 Economics is equivalent to MSUM ECON 100 The American Economy (3 cr) (Goal 2)

\*10-809-197 Contemporary Amer Society satisfies MSUM Goal 5.

10-809-198 Intro to Psychology is equivalent to MSUM PSY 113 (3 cr) (Goal 5)

Additional courses needed to complete degree at Minnesota State University Moorhead:						
Course No.	Course Title	Credits				
ACCT 230	Principles of Accounting I	3				
ENGL 387	Technical Report Writing	4				
MGMT 360	Principles of Management	3				
OM 380	Methods Improvement	3				
OM 383	Cost Analysis	3				
OM 385	Process Leadership	3				
OM 394	Computer Applications for Technologists	3				
OM 428	Project Management	3				
OM 469	Internship**	3				
OM 482	Quality Planning and Implementation	3				
OM 485	Production and Inventory Management	3				
OM 493	Occupational Safety and Health	3				

General Education / Liberal Arts and Sciences Curriculum (LASC) credits required at MSU Moorhead for graduation is 42. A student transferring with their *Construction Management Technology AAS* would need to take up to <u>33</u> additional credits in the goal areas. Students are encouraged to consult with an MSUM advisor to choose the best general education courses to take.

FVTC AAS Construction Management Technology degree credits accepted:	50
MSUM degree core credits:	37
MSUM degree additional gen eds:	33
Total credits student takes to complete MSUM B.S. Operations Management:	120

FVTC Program: 106201

#### Electro-Mechanical Technology to B.S. Operations Management

## Minnesota State University Moorhead

	FVTC			Minnesota State University Moorhead		
Course No.	Course No. Course Title Credits		Course No.	Course Title	Credits	
	Technical Studies			•		
10-609-101	Electrical Safety, Industry	1				
10-609-170	Ladder Logic and Control Devices	1				
10-609-172	DC/AC Variable Speed Drives	1				
10-609-173	Programmable Logic Controllers 1	1				
10-620-103	DC Circuits 3 - Aircraft/Electromechanical	1				
10-620-152	Industrial Solid State 1	1				
10-620-153	Industrial Solid State 2	1				
10-620-154	Hydraulics 1	1				
10-620-155	Hydraulics 2	1				
10-620-156	Hydraulics 3	1				
10-620-160	Mechanical Linkages 1	1				
10-620-161	Mechanical Linkages 2	1				
10-620-162	Pneumatics 1	1		Technical credits accepted in transfer as a block	20	
10-620-163	Pneumatics 2	1			30	
10-620-170	Electrical Generators & Power Dist Systems	1				
10-620-171	Electrical Motors-DC	1		Additional credits will be accepted as unrestricted		
10-620-172	Electrical Motors-AC	1		elective credits	10	
10-620-173	Servomechanisms 1	1				
10-620-174	Servomechanisms 2	1				
10-620-177	Mechanical Drives 1	1				
10-620-178	Mechanical Drives 2	1				
10-620-182	Programmable Logic Controllers 2	1				
10-620-183	Process Variables and Measurements 1	1				
10-620-184	Process Variables and Measurements 2	1				
10-620-185	Instrumentation and Process Control 1	1				
10-620-186	Instrumentation and Process Control 2	1				
10-620-187	Sensors	1				
10-620-188	System Troubleshooting	1				
10-620-189	Electromechanical Systems 1	1				

Tot	al credits needed at FVTC to complete degree:	68		Total credits accepted:	53
	Total Electives Credits:	4			4
10-628-125	CAD for Technicians	1			
10-620-198	Robotics 2	1			
10-620-197	Robotics 1	1			
10-620-196	Industrial Operations 2	1		Additional credits will be accepted as unrestricted elective credits	4
10-620-195	Industrial Operations 1	1			
10-620-193	Advanced Programmable Logic Controllers 2	1			
10-620-169	Electronic Shop Practices	1			
	Suggested Electives	•			
10 000 100	Total General Studies Credits:	24		255556 chansie.	9
10-809-199	Psychology of Human Relations	3	(Goal 2)	Does not transfer	0
10-809-195	Economics	3	ECON 100	The American Economy	3
10-804-116	College Technical Math 2	4		Does not transfer	0
10-801-197	College Technical Math 1	5		Does not transfer	0
10-801-197	Technical Reporting	3	(Goal 1A)	Does not transfer	0
10-801-196	Oral/Interpersonal Communication	3	CMST 100	Speech Communications	3
10-801-195	General Studies  Written Communication	3	Goal 1B	Written Communication	3
		40			40
10-660-131	Digital Electronics Tech 2  Total Technical Studies Credits:	40			40
10-660-130	Digital Electronics Tech 1	1			
10-660-121	Solid State 2	1			
10-660-120	Solid State 1	1			
10-660-115	AC Circuits 2	1			
10-660-114	AC Circuits 1	1			
10-660-111	DC Circuits 2	1			
10-660-110	DC Circuits 1	1			
10-620-192	Advanced Programmable Logic Controllers 1	1			
10-620-191	Advanced Systems Control	1			
10-620-190	Advanced AC/DC Variable Speed Drives	1			

10-809-198

\*\* Up to 12 internship credits may be earned.

MSUM will transfer the same number of credits that FVTC awards. Equivalencies for General Education / Liberal Arts and Sciences Curriculum (LASC) courses are listed below:

Sciences Curri	Sciences Curriculum (LASC) courses are listed below:			
*10-801-195	Written Communication satisfies MSUM Goal 1B (3 cr)			
*10-801-196	Oral /Interpersonal Comm is equivalent to MSUM CMST 100 (3 cr) (Goal 1A)			
10-806-114	General Biology satisfies MSUM Goal 3.			
10-806-134	General Chemistry is equivalent to MSUM CHEM 110/110 Fundamentals of Chemistry (Goal 3)			
10-806-154	General Physics 1 is equivalent to MSUM PHYS 160/ 160L College Physics I (4 cr) (Goal 3)			
10-809-166	Intro to Ethics: Theory & App satisfies MSUM Goal 9.			
*10-809-172	Intro to Diversity Studies satisfies MSUM satisfies Goal 7			
*10-809-195	Economics is equivalent to MSUM ECON 100 The American Economy (3 cr) (Goal 2)			
*10-809-197	Contemporary Amer Society satisfies MSUM			

113 (3 cr) (Goal 5)

Intro to Psychology is equivalent to MSUM PSY

Add	itional courses needed to complete degree at Minnesota State University Moorhead:	
Course No.	Course Title	Credits
ACCT 230	Principles of Accounting I	3
ENGL 387	Technical Report Writing	4
MGMT 360	Principles of Management	3
OM 380	Methods Improvement	3
OM 383	Cost Analysis	3
OM 385	Process Leadership	3
OM 394	Computer Applications for Technologists	3
OM 428	Project Management	3
OM 469	Internship**	3
OM 482	Quality Planning and Implementation	3
OM 485	Production and Inventory Management	3
OM 493	Occupational Safety and Health	3

General Education / Liberal Arts and Sciences Curriculum (LASC) credits required at MSU Moorhead for graduation is 42. A student transferring with their Electro-Mechanical Technology AAS would need to take up to <u>33</u> additional credits in the goal areas. Students are encouraged to consult with an MSUM advisor to choose the best general education courses to take.

FVTC AAS Electro-Mechanical Technology degree credits accepted:	53
MSUM degree core credits:	37
MSUM degree additional gen eds:	33
Total credits student takes to complete MSUM B.S. Operations Management:	123

FVTC Program: 106061

#### Mechanical Design Technology to B.S. Operations Management

## Minnesota State University Moorhead

FVTC				Minnesota State University Moorhead	
Course No. Course Title		Credits	Course No.	Course Title	Credits
	Technical Studies				
10-420-111	Metallurgy	2			
10-420-145	Manufacturing Processes, Cold-Machining	2			
10-457-103	Manufacturing Processes, Hot-Welding	2			
10-606-102	CATIA V5 - Basic	2			
10-606-109	Geometric Dimensioning and Tolerancing	2			
10-606-111	Design Problems	4		Technical credits accepted in transfer as a block	30
10-606-113	Technical Drafting 1	5			30
10-606-115	Design of Tooling	4			
10-606-117	Technical Drafting 2	4		Additional credits will be accepted as unrestricted elective credits	8
10-606-119	Statics and Strength of Materials	3			
10-606-121	Elements of Machine Design	3			
10-606-123	Kinematics	4			
10-606-127	Intermediate AutoCAD	1			
10-806-144	College Physics 2	3			
	Total Technical Studies Credits:	41			38
	General Studies				
10-801-195	Written Communication	3	Goal 1B	Written Communication	3
10-801-196	Oral/Interpersonal Communication	3	CMST 100 (Goal 1A)	Speech Communications	3
10-804-115	College Technical Math 1	5		Does not transfer	0
10-804-116	College Technical Math 2	4		Does not transfer	0
10-809-195	Economics	3	ECON 100 (Goal 2)	The American Economy	3
10-809-197	Contemporary American Society*	3	Goal 5	History & the Social and Behavioral Sciences	3
10-809-199	Psychology of Human Relations	3		Does not transfer	0
	Total General Studies Credits:	24			12
	Suggested Electives	•			
10-419-101	Fluid Power - Mechanical Design	2			
10-606-107	CATIA V5 - Advanced	2	]		
10-606-124	Intro to Product Design & Rapid Prototyping	2	1	Additional credits will be accepted as unrestricted elective credits	4
10-606-125	3D Modeling and Materials	2	1		
	-				

Tota	al credits needed at FVTC to complete degree:	69	Total credits accepted:	54
Total Electives Credits:		4		4
10-606-190	Mechanical Design Occupational Experience	2		
10-606-128	Advanced AutoCAD	2		

113 (3 cr) (Goal 5)

\*\* Up to 12 internship credits may be earned.

MSUM will transfer the same number of credits that FVTC awards. Equivalencies for General Education / Liberal Arts and Sciences Curriculum (LASC) courses are listed below:

culum (LASC) courses are listed below:
Written Communication satisfies MSUM Goal 1B (3 cr)
Oral /Interpersonal Comm is equivalent to MSUM CMST 100 (3 cr) (Goal 1A)
General Biology satisfies MSUM Goal 3.
General Chemistry is equivalent to MSUM CHEM 110/110 Fundamentals of Chemistry (Goal 3)
General Physics 1 is equivalent to MSUM PHYS 160/ 160L College Physics I (4 cr) (Goal 3)
Intro to Ethics: Theory & App satisfies MSUM Goal 9.
Intro to Diversity Studies satisfies MSUM satisfies $\operatorname{Goal} 7$
Economics is equivalent to MSUM ECON 100 The American Economy (3 cr) (Goal 2)
Contemporary Amer Society satisfies MSUM Goal

10-809-198 Intro to Psychology is equivalent to MSUM PSY

Add	itional courses needed to complete degree at Minnesota State University Moorhead:	
Course No.	Course Title	Credits
ACCT 230	Principles of Accounting I	3
ENGL 387	Technical Report Writing	4
MGMT 360	Principles of Management	3
OM 380	Methods Improvement	3
OM 383	Cost Analysis	3
OM 385	Process Leadership	3
OM 394	Computer Applications for Technologists	3
OM 428	Project Management	3
OM 469	Internship**	3
OM 482	Quality Planning and Implementation	3
OM 485	Production and Inventory Management	3
OM 493	Occupational Safety and Health	3

General Education / Liberal Arts and Sciences Curriculum (LASC) credits required at MSU Moorhead for graduation is 42. A student transferring with their Mechanical Design Technology AAS would need to take up to <u>30</u> additional credits in the goal areas. Students are encouraged to consult with an MSUM advisor to choose the best general education courses to take.

54	FVTC AAS Mechanical Design Technology degree credits accepted:
37	MSUM degree core credits:
30	MSUM degree additional gen eds:
121	Total credits student takes to complete MSUM B.S. Operations Management:

FVTC Program: 106211

## Welding Technician, Industrial to B.S. Operations Management

## Minnesota State University Moorhead

	FVTC			Minnesota State University Moorhead	
Course No.	Course Title	Credits	Course No.	Course Title	Credits
	Technical Studies				
10-457-153	Fabrication Techniques 1	2			
10-457-160	Manufacturing Processes	2			
10-457-161	Cutting Processes	2			
10-621-101	Welding Codes & Testing	2			
10-621-111	Welding NDE	2			
10-621-113	Robotic Arc Welding	2			
10-621-115	Welding Processes, Design & Costs	2			
10-621-116	Welding Metallurgy	3		Technical credits accepted in transfer as a block	30
10-621-117	Weldability of Materials	3			
10-621-121	SMAW Techniques 1	2		Additional credits will be accepted as unrestricted elective credits	7
10-621-122	SMAW Techniques 2	2			
10-621-123	GMAW Techniques 1	2			
10-621-124	GMAW Techniques 2	2			
10-621-125	FCAW Techniques	2			
10-621-126	GTAW Techniques	2			
10-621-133	Welding Shop Drawings	2			
10-621-150	Electrical Theory & Maintenance for Welders	3			
	Total Technical Studies Credits:	37			37
	General Studies				
10-801-195	Written Communication	3	Goal 1B	Written Communication	3
10-801-196	Oral/Interpersonal Communication	3	CMST 100 (Goal 1A)	Speech Communications	3
10-801-197	Technical Reporting	3		Does not transfer	0
10-804-113	College Technical Math 1A	3		Does not transfer	0
10-804-114	College Technical Math 1B	2		Does not transfer	0
10-804-116	College Technical Math 2	4		Does not transfer	0
10-809-195	Economics	3	ECON 100 (Goal 2)	The American Economy	3
10-809-199	Psychology of Human Relations	3	(3341 2)	Does not transfer	0
	Total General Studies Credits:	24			9

Suggested Electives				
10-457-154	Fabrication Techniques 2	2		
10-457-162	Pattern Drafting Processes	2	Additional credits will be accepted as unrestricted	
10-457-163	Manufacturing Enterprise	2	elective credits	
10-621-119	Forging, the Blacksmith's Art	2		
	Total Electives Credits:	6		6
Total credits needed at FVTC to complete degree:		67	Total credits accepted:	52

OM 493

Notes:

\*\* Up to 12 internship credits may be earned.

MSUM will transfer the same number of credits that FVTC awards. Equivalencies for General Education / Liberal Arts and Sciences Curriculum (LASC) courses are listed below:

*10-801-195	Written Communication satisfies MSUM Goal 1B
	(3 cr)

<sup>\*10-801-196</sup> Oral /Interpersonal Comm is equivalent to MSUM CMST 100 (3 cr) (Goal 1A)

10-806-154 General Physics 1 is equivalent to MSUM PHYS 160/ 160L College Physics I (4 cr) (Goal 3)

10-809-166 Intro to Ethics: Theory & App satisfies MSUM

Goal 9.

\*10-809-172 Intro to Diversity Studies satisfies MSUM satisfies

Goal 7

\*10-809-195 Economics is equivalent to MSUM ECON 100 The American Economy (3 cr) (Goal 2)

\*10-809-197 Contemporary Amer Society satisfies MSUM Goal 5.

10-809-198 Intro to Psychology is equivalent to MSUM PSY 113 (3 cr) (Goal 5)

Additional courses needed to complete degree at Minnesota State University Moorhead:						
Course No.	Course Title	Credits				
ACCT 230	Principles of Accounting I	3				
ENGL 387	Technical Report Writing	4				
MGMT 360	Principles of Management	3				
OM 380	Methods Improvement	3				
OM 383	Cost Analysis	3				
OM 385	Process Leadership	3				
OM 394	Computer Applications for Technologists	3				
OM 428	Project Management	3				
OM 469	Internship**	3				
OM 482	Quality Planning and Implementation	3				
OM 485	Production and Inventory Management	3				

General Education / Liberal Arts and Sciences Curriculum (LASC) credits required at MSU Moorhead for graduation is 42. A student transferring with their Welding Technician, Industrial AAS would need to take up to <u>33</u> additional credits in the goal areas. Students are encouraged to consult with an MSUM advisor to choose the best general education courses to take.

3

Occupational Safety and Health

FVTC AAS Welding Technician, Industrial degree credits accepted:	52
MSUM degree core credits:	37
MSUM degree additional gen eds:	33
Total credits student takes to complete MSUM B.S. Operations Management:	122

<sup>10-806-114</sup> General Biology satisfies MSUM Goal 3.

<sup>10-806-134</sup> General Chemistry is equivalent to MSUM CHEM 110/110 Fundamentals of Chemistry (Goal 3)

FVTC Program: 101092

#### Hotel & Restaurant Management to B.S. Project Management

## Minnesota State University Moorhead Academic Year: 2014-15

FVTC			Minnesota State University (MSU) Moorhead		
Course No.	Course Title	Credits	Course No.	Course Title	Credits
	Technical Studies				
10-101-107	Accounting, Principles of	3	ACCT 230	Principles of Accounting I	3
10-109-103	Hospitality Law and Liability	3			
10-109-111	Room Operations	3			
10-109-119	Hospitality Security	2			
10-109-125	Hospitality Sales and Promotion	2			
10-109-126	Customer Service Management	3			
10-109-131	Tourism: A Community Approach	3		Condition will be a considered and a selections	2.1
10-109-140	Principles of Group Sales	2		Credits will be accepted as electives	31
10-109-152	Introduction to Hospitality	3			
10-316-120	Culinary Applications	2			
10-316-123	Hospitality Supervision	3			
10-316-141	Food, Beverage and Labor Cost Controls	3			
10-316-142	Catering and Special Event Planning	2			
10-109-113	Hospitality - Internship 1	2			
10-109-114	Hospitality - Internship 2	2			
10-316-101	Food Production, Introduction to	3		Does not transfer	0
10-316-118	Sanitation for Food Service Operations	1			
10-531-101	First Aid/CPR, Principles and Practices	1			
	Total Technical Studies Credits:	43			34
	General Studies				
10-801-195	Written Communication	3	1B	MnTC Goal 1B	3
10-801-196	Oral/Interpersonal Communication	3	COMM 100	Speech Communications	3
10-804-123	Math w Business Apps	3		Does not transfer	0
10-809-172	Introduction to Diversity Studies	3	7	MnTC Goal Area7	3
10-809-195	Economics	3	ECON 100	The American Economy	3
10-809-196	Intro to Sociology	3	SOC 111	Intro to Sociology	3
10-809-198	Intro to Psychology	3	PSY 113	General Psychology	3
	Total General Studies Credits:	21			18

Suggested Electives					
10-109-115	Culinary Internship	2		Does not transfer	0
10-109-150	Issues in Hospitality	2		Elective (2)	2
10-109-151	Resort Management	2		Elective (2)	2
10-802-100	Spanish 1	3	SPAN 101	Beginning Spanish 1	3
Total Electives Credits:		3			3-4
Total credits needed at FVTC to complete degree:		67		Total credits accepted:	55-56

Add	litional courses to be taken at MSU Moorhead	
Course No.	Course Title	Credits
MnTC	Gen Ed remaining credits to complete LASC*	12 - 15
MATH 127	College Algebra (Goal 4)	3
MATH 234	Probability & Statistics (Goal 4)	3
ECON 202	Microeconomics (Goal 5)	3
ENGL 387	Technical Report Writing	4
FINC 340	Financial Management	3
MGMT 360	Principles of Management	3
MGMT 370	Management Information Systems	3
MGMT 456	Project Management in Business	3
MKTG 310	Principles of Marketing	3
OM 380	Methods Improvement	3
OM 483	Cost Analysis	3
OM 394	Computer Applications for Technologists	3
OM 482	Quality Planning & Implementation	3
PMGT 300	Project Management & Scheduling	3
PMGT 385	Process Leadership	3
PMGT 400	Advanced Project Management, Risk & Liability	3
PMGT 496	Project Management	3
	Electives	0 - 1
	Credits from MSU Moorhead:	65-67
	Credits from FVTC A.A.S. Hotel & Restaurant Management:	55-56
Total cred	lits student takes to complete MSU Moorhead B.S. Project Management:	120- 123

FVTC Program: 101161

## **Human Resources to B.S. Project Management**

# Minnesota State University Moorhead

FVTC			Minnesota State University (MSU) Moorhead			
Course No.	Course Title	Credits	Course No.	Course Title	Credits	
	Technical Studies					
10-116-104	Labor Relations	3				
10-116-150	Employment Law	3				
10-116-151	Employee Relations	3				
10-116-153	Compensation and Benefits	3				
10-116-154	Recruiting and Hiring	3		Credite will be appeared as electives	30	
10-116-156	HR Aspects of Insurance Administration	3		Credits will be accepted as electives	30	
10-116-160	Training Design and Measurement	3				
10-116-161	HR Record Keeping Systems	3				
10-116-168	Principles of Budgeting for HR	3				
10-116-193	Human Resources Management	3				
10-809-172	Introduction to Diversity Studies	3		MnTC Goal Area 7	3	
10-102-112	Business, Introduction to	3				
10-103-120	MS Office Suite, Introduction	2		Does not transfer	0	
10-116-123	Human Resources Internship	2				
	Total Technical Studies Credits:	40		•	33	
	General Studies					
10-801-195	Written Communication	3	1B	MnTC Goal 1B	3	
10-801-196	Oral/Interpersonal Communication	3	COMM 100	Speech Communications	3	
10-804-123	Math w Business Apps	3		Does not transfer	0	
10-809-166	Intro to Ethics: Theory & App	3	9	MnTC Goal Area 9	3	
10-809-195	Economics	3	ECON 100	The American Economy	3	
10-809-197	Contemporary American Society	3	5	MnTC Goal Area 5	3	
10-809-199	Psychology of Human Relations	3	5	MnTC Goal Area 5	3	
	Total General Studies Credits:	21			18	
	Suggested Electives					
10-196-121	Safety, Principles of	2		Elective (2)	2	
10-196-131	Problem Solving	2		Elective (2)	2	
10-802-100	Spanish 1	3	SPAN 101	Beginning Spanish I (Goal 8)	3	

6		6	Total Electives Credits:
57	Total credits accepted:	67	Total credits needed at FVTC to complete degree:

Add	litional courses to be taken at MSU Moorhead				
Course No.	Course Title	Credits			
MnTC	Gen Ed remaining credits to complete LASC*	9 - 12			
MATH 127	College Algebra (Goal 4)	3			
MATH 234	Probability & Statistics (Goal 4)	3			
ECON 202	Microeconomics (Goal 5)	3			
ACCT 230	ACCT 230 Principles of Accounting I	3			
ENGL 387	Technical Report Writing	4			
FINC 340	Financial Management	3			
MGMT 360	Principles of Management	3			
MGMT 370	Management Information Systems	3			
MGMT 456	Project Management in Business	3			
MKTG 310	Principles of Marketing	3			
OM 380	Methods Improvement	3			
OM 483	Cost Analysis	3			
OM 394	Computer Applications for Technologists	3			
OM 482	Quality Planning & Implementation	3			
PMGT 300	Project Management & Scheduling	3			
PMGT 385	Process Leadership	3			
PMGT 400	Advanced project Management, Risk & Liability	3			
PMGT 496	Project Management	3			
	Credits from MSU Moorhead:	64-67			
Credits from FVTC A.A.S. Human Resources:					
Total cred	lits student takes to complete MSU Moorhead B.S. Project Management:	121- 124			

FVTC Program: 101043

#### Marketing to B.S. Project Management

## Minnesota State University Moorhead

FVTC			Minnesota State University (MSU) Moorhead		
Course No.	Course Title	Credits	Course No.	Course Title	Credits
	Technical Studies				
10-103-120	MS Office Suite, Introduction	2			
10-102-112	Business, Introduction to	3		Dana not turnefou	
10-104-166	Intro to Sales	3		Does not transfer	0
10-104-105	Marketing Internship	3			
10-104-151	Marketing 1, Principles of	3	MKTG 310	Principles of Marketing	3
10-101-107	Accounting, Principles of	3	ACCT 230	Principles of Accounting 1	3
10-102-103	Business Law 1-	3			
10-104-100	Digital Marketing-	3			
10-104-101	Marketing Analytics-	3			
10-104-103	Integrated Marketing Communications-	3			
10-104-104	Marketing Plan Development-	3			
10-104-106	Consumer Behavior-	3			
10-104-113	Marketing Research-	3	Credits will be accepted as electives	Credits will be accepted as electives	27
10-104-124	Advanced Sales-	3			
	Total Technical Studies Credits:	41			
	Suggested Electives				
10-102-157	Business Law 2	3			
OR					
10-145-104	Entrepreneurship, Introduction to	3			
10-104-110	DECA Leadership	1		Does not transfer	0
10-145-101	Entrepreneurial Mindset	1		Does not transfer	U
	Total Electives Credits:	3			
	Total Technical Studies and Elective Credits:	44			33
	General Studies				
10-801-195	Written Communication	3	1B	MnTC Goal 1B	3
10-801-196	Oral/Interpersonal Communication	3	COMM 100	Speech Communications	3
10-804-123	Math w Business Apps	3		Does not transfer	0
10-809-166	Intro to Ethics: Theory & App	3	9	MnTC Goal Area 9	3

10-809-195	Economics	3	ECON 110	The America Economy	3
10-809-196	Intro to Sociology	3	SOC 110	Intro to Sociology	3
10-809-198	Intro to Psychology	3	PSY 113	PSY 113 General Psychology	3
	Total General Studies Credits:	21			18
Total credits needed at FVTC to complete degree:		65		Total credits accepted:	51

Additional courses needed to complete degree at MSU Moorhead:		
Course No.	Course Title	Credits
MnTC	Gen Ed remaining credits to complete LASC	15
MATH 127	College Algebra (Goal 4)	3
MATH 234	Probability & Statistics (Goal 4)	3
ECON 202	Microeconomics (Goal 5)	3
ENGL 387	Technical Report Writing	4
FINC 340	Financial Management	3
MGMT 360	Principles of Management	3
MGMT 370	Management Information Systems	3
MGMT 456	Project Management in Business	3
OM 380	Methods Improvement	3
OM 483	Cost Analysis	3
OM 394	Computer Applications for Technologists	3
OM 482	Quality Planning & Implementation	3
PMGT 300	Project Management & Scheduling	3
PMGT 385	Process Leadership	3
PMGT 400	Advanced project Management, Risk & Liability	3
PMGT 496	Project Management	3
	Electives	5
Credits from MSU Moorhead:		69
Credits from FVTC A.A.S. Marketing:		51
Total credits student takes to complete MSU Moorhead B.S. Project Management:		120