



# Mechanical Maintenance Technology

Associate in Applied Science  
Degree Plan 2015-2016

Prescribed Technical Program Total	52
General Education Total	15
<b>Total Degree Credits</b>	<b>67</b>

## Freshman Fall Semester

Prescribed Technical Program Requirements			
MMAT	101	Introduction to Industrial Operations	2
MMAT	103	Safety and Health	2
MMAT	105	Hand and Portable Tools	2
MMAT	107	Basic Mechanics	2
MMAT	109	Measurements	2
MMAT	111	Schematics Symbols and Blueprints	2
MMAT	113	Industrial Rigging	1
MMAT	115	Lubrication, Bearings and Seals	2
MMAT	117	Material Handling Systems	1
MMAT	119	Troubleshooting Skills	1
<b>Total Credits</b>			<b>17</b>

## Freshman Spring Semester

Prescribed Technical Program Requirements			
MMAT	150	Mechanical & Fluid Drive Systems	2
MMAT	155	Hydraulics and Pneumatics	2
MMAT	160	Valves and Steam Traps	3
MMAT	162	Piping, Tubing Systems & Pipefitting	3
MMAT	170	Equipment Installation	3
MMAT	175	Pumps, Compressors and Turbines	4
MMAT	180	Metals & Nonmetals in the Plant	2
<b>Total Credits</b>			<b>19</b>

## Sophomore Fall Semester

Prescribed Technical Program Requirements			
WELD	110	Oxyfuel Operations	2
WELD	118	Testing OA in Welding, Brazing, Cutting	2
WELD	135	Welding Principles	2
WELD	140	Methods in GMA and FCA Welding	2
WELD	170	Arc Welding Operations	2
WELD	173	Methods in Arc Welding Operations	4
MMAT	205	Basic Electricity and Electronics	2
<b>Total Credits</b>			<b>16</b>

## General Education Requirements

Arts & Humanities/Social & Behavioral Sciences			
1.			3
Business, Math, Science & Technology (Two areas of study)			
1.			3
2.			3
Communications I			
ENGL	110	College Composition I (Required)	3
Communications II (Select one course.)			
ENGL	120	College Composition II	
ENGL	125	Introduction to Professional Writing	3
COMM	110	Fundamentals of Public Speaking	
<b>Total Credits</b>			<b>15</b>

# Associate in Applied Science (AAS)

Advisor: \_\_\_\_\_  
Office: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

## Degree Checklist

### Credits

- \_\_\_\_\_ Earned a minimum of 3 credits in ENGL 110  
\_\_\_\_\_ Earned a minimum of 3 credits in ENGL 120, 125 or COMM 110  
\_\_\_\_\_ Earned a minimum of 3 credits in Arts & Humanities/Social & Behavioral Science  
\_\_\_\_\_ Earned a minimum of 6 credits in Business, Math, Science & Technology  
\_\_\_\_\_ Earned prescribed technical program requirements  
\_\_\_\_\_ Earned a minimum of 60 total credits

*-Academic Skills Courses (ASC) do not apply toward graduation.*

- Earned a minimum of 15 institutional credit (BSC only)  
 Earned a minimum 2.00 institutional GPA (BSC only)  
 Earned a minimum 2.00 cumulative GPA (BSC + Transfer)  
 Earned a minimum 2.00 GPA in a prescribed technical program  
 Cleared all college obligations  
 Declared program of study is Degree-seeking  
 Filed an Application for Degree

### Legend

(\*) Course not approved as GERTA

## General Education Requirements

### Category I: COMMUNICATIONS

Completed \_\_\_\_\_ Needed \_\_\_\_\_

#### Communications I

*(3 Credits) - ENGL 110*

Gr. Cr.  
\_\_\_\_\_ 3 ENGL 110 College Composition I

Transfer Course  
\_\_\_\_\_

#### Communications II

*(3 Credits) -ENGL 120, 125, COMM 110 (Select one)*

Gr. Cr.  
\_\_\_\_\_ 3 ENGL 120 College Composition II  
\_\_\_\_\_ 3 ENGL 125 Introduction to Professional Writing  
\_\_\_\_\_ 3 COMM 110 Fundamentals of Public Speaking

Transfer Course  
\_\_\_\_\_

# General Education Requirements Continued

## Category II: ARTS & HUMANITIES/SOCIAL & BEHAVIORAL SCIENCES

Completed

Needed

(3 Credits)

Gr.	Cr.		Gr.	Cr.		Gr.	Cr.	
3		ART 110	3		HIST 101	3		POLS 115
		Introduction to the Visual Art			Western Civilization I			American Government
3		ART 122	3		HIST 102	3		POLS 116
		Two Dimensional Design			Western Civilization II			State & Local Government
3		ART 124	3		HIST 103	3		POLS 220
		Three Dimensional Design			United States to 1877			International Politics
3		ART 130	3		HIST 104	3		PSYC 111
		Drawing I			United States since 1877			Introduction to Psychology
3		ART 210	3		HIST 220	3	*	PSYC 211
		Art History I			North Dakota History			Introduction to Behavior Modification
3		ART 211	3		HIST 222	3		PSYC 250
		Art History II			History of the Western Frontier			Developmental Psychology
3		ART 220	3		HIST 224	3	*	PSYC 261
		Painting I			American Studies I			Psychology of Adjustment
3		ART 221	3		HIST 225	3		PSYC 270
		Painting II			American Studies II			Abnormal Psychology
3		ART 230	1-3	*	HIST 243	3		RELS 120
		Drawing II			Historical Investigations			Religion in America
3		ART 250	3		HUMS 210	3		RELS 201
		Ceramics I			Integrated Cultural Studies			Life & Letters of Paul
3		ART 251	1-4		HUMS 211	3		RELS 203
		Ceramics II			Integrated Cultural Excursion			World Religions
2		ART 265	2		HUMS 212	3		RELS 220
		Sculpture I			Integrated Cultural Enrichment			Old Testament
2		ART 266	3		MUSC 100	3		RELS 230
		Sculpture II			Music Appreciation			New Testament
3		CJ 201	1		MUSC 117	3		SOC 110
		Introduction to Criminal Justice			Concert Choir			Introduction to Sociology
3		COMM 211	1		MUSC 118	3		SOC 115
		Oral Interpretation			Chamber Choir			Social Problems
3	*	COMM 212	1		MUSC 121	3		SOC 220
		Interpersonal Communications			String Ensemble			Family
3		ECON 105	1		MUSC 132	3		SOC 221
		Elements of Economics			Wind Ensemble			Minority Relations
3		ECON 201	1		MUSC 133	3		SOC 235
		Principles of Microeconomics			Woodwind Ensemble I			Cultural Diversity
3		ECON 202	1		MUSC 134	3		SOC 251
		Principles of Macroeconomics			Woodwind Ensemble II			Gerontology
3		ENGL 211	1		MUSC 135	3		SOC 252
		Introduction to Creative Writing			Brass Ensemble I			Criminology
3		ENGL 221	1		MUSC 136	3		SOC 275
		Introduction to Drama			Brass Ensemble II			American Indian Studies
3		ENGL 222	1		MUSC 137	4		SPAN 101
		Introduction to Poetry			Jazz Ensemble			First Year Spanish I
3		ENGL 233	1	*	MUSC 138	4		SPAN 102
		Fantasy & Science Fiction			Percussion Ensemble			First Year Spanish II
3		ENGL 236	1		MUSC 145	4		SPAN 201
		Women & Literature			Applied Music			Second Year Spanish I
3		ENGL 238	1		MUSC 146	4		SPAN 202
		Children's Literature			Applied Music - Major			Second Year Spanish II
3		ENGL 251	3		PHIL 101	3		SWK 256
		British Literature I			Introduction to Philosophy			Development of Social Welfare
3		ENGL 252	3		PHIL 210	3		THEA 110
		British Literature II			Ethics			Introduction to Theatre Arts
3		ENGL 261	3		PHIL 220	3		THEA 161
		American Literature I			Introduction to Logic			Acting I
3		ENGL 262	3		PHIL 250	3		THEA 261
		American Literature II			Philosophy in Cinema			Acting II
3		ENGL 278	3	*	PHIL 253			
		Alternative Literature			Environmental Ethics			

Transfer Courses

Transfer Courses

Transfer Courses


## General Education Requirements Continued

### Category III: BUSINESS, MATH, SCIENCE & TECHNOLOGY

Completed \_\_\_\_\_ Needed \_\_\_\_\_

(6 Credits) Must be satisfied with courses from two areas of study. Area of study is based on course prefix.

Gr.	Cr.			Gr.	Cr.			Gr.	Cr.			
_____	3	*	ACCT 200	Elements of Accounting I	_____	3/1	CHEM 110	Survey of Chemistry/Lab	_____	3	MATH 146	Applied Calculus I
_____	3	*	ACCT 201	Elements of Accounting II	_____	3/1	CHEM 112	Introduction to Forensic Science/Lab	_____	4	MATH 165	Calculus I
_____	3/1		ASTR 150	Meteorology/Lab	_____	3/1	CHEM 114	Chemistry in Art/Lab	_____	4	MATH 166	Calculus II
_____	3	*	BADM 202	Principles of Management	_____	4/1	CHEM 115	Introductory Chemistry/Lab	_____	3	* MATH 208	Discrete Mathematics
_____	3	*	BADM 210	Advertising I	_____	4/1	CHEM 116	Intro to Organic & Biochemistry/Lab	_____	3	MATH 210	Elementary Statistics
_____	3	*	BADM 240	Sales	_____	4/1	CHEM 121	General Chemistry I/Lab	_____	4	* MATH 277	Math for Elementary Teachers I
_____	3	*	BADM 281	Organizational Behavior	_____	4/1	CHEM 122	General Chemistry II/Lab	_____	3/1	MICR 202	Introductory Microbiology/Lab
_____	3	*	BADM 282	Human Resource Management	_____	4	* CIS 164	Networking Fundamentals	_____	3	* NUTR 240	Principles of Nutrition
_____	1	*	BIOL 102	Introduction to Aquarium Keeping	_____	3	CSCI 101	Introduction to Computers	_____	3/1	PHYS 100	Concepts of Physics/Lab
_____	3		BIOL 109	Living World	_____	3	CSCI 122	Beginning Visual Basic	_____	3/1	PHYS 110	Introduction to Astronomy/Lab
_____	3/1		BIOL 111	Concepts of Biology/Lab	_____	4	CSCI 160	Computer Science I	_____	3/1	PHYS 211	College Physics I/Lab
_____	3/1		BIOL 115	Human Structure & Function/Lab	_____	4	CSCI 161	Computer Science II	_____	3/1	PHYS 212	College Physics II/Lab
_____	3		BIOL 124	Environmental Science	_____	3/1	GEOG 121	Physical Geography/Lab	_____	4/1	PHYS 251	University Physics I/Lab
_____	3/1		BIOL 126	Human Biology/Lab	_____	3/1	GEOG 102	Historical Geology/Lab	_____	4/1	PHYS 252	University Physics II/Lab
_____	3/1		BIOL 150	General Biology I/Lab	_____	3/1	GEOG 105	Physical Geology/Lab	_____	2/1	PLSC 110	World Food Crops/Lab
_____	3/1		BIOL 151	General Biology II/Lab	_____	3	GIS 105	Fundamentals of GIS	_____	3/1	SCNC 101	Physical Science I/Lab
_____	3/1		BIOL 220	Anatomy & Physiology I/Lab	_____	3	* GIS 107	GIS Applications	_____			Biology & Chemistry
_____	3/1		BIOL 221	Anatomy & Physiology II/Lab	_____	4	MATH 103	College Algebra	_____	3/1	SCNC 102	Physical Science II/Lab
_____	3/1		BIOL 250	Survey-Tropical Biology/Lab	_____	3	MATH 104	Finite Math	_____			Physics & Geology
_____	3/1		BIOL 251	Community Ecology/Lab	_____	2	MATH 105	Trigonometry	_____	3/1	SCNC 103	Physical Science III/Lab
_____	3/1		BOT 170	Plant Form & Diversity/Lab	_____	4	MATH 107	Pre-Calculus	_____			Astronomy & Meteorology
_____	3	*	BUSN 120	Fundamentals of Business	_____	3	* MATH 137	Applied Algebra	_____	2/1	* SOIL 210	Introduction to Soil Science/Lab

Transfer Courses

Transfer Courses

Transfer Courses

## Academic Skills Courses (ASC)

The following Academic Skills Courses (ASC), as well as Math 102, are pre-college courses indicate the need for college preparation work before enrollment in college level courses. These courses will not carry honor points or earned credit and will not count toward the student's degree program.

Gr.	Cr.			Gr.	Cr.			
_____	2		ASC 082	Effective Reading	_____	2	ASC 92	Algebra Prep II
_____	3		ASC 087	College Writing Prep	_____	2	ASC 93	Algebra Prep III
_____	1		ASC 088	Composition Lab	_____	3/1	ASC 098	Basic Biology/Lab
_____	2		ASC 91	Algebra Prep I				