



# Mechanical Maintenance Technology

## Program Certificate

Advising Worksheet\* 2019-2020

Prescribed Technical Program Total	51
General Education Total	4
<b>Total Degree Credits</b>	<b>55</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	2
MMAT	170	Equipment Installation	2
MMAT	175	Pumps, Compressors and Turbines	4
MMAT	180	Metals & Nonmetals in the Plant	2
<b>Total Credits</b>			<b>17</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	3
<b>Total Credits</b>			<b>17</b>

### General Education Requirements

Complete 4 credits of general education from any two areas of study.

1.	4
2.	
<hr/>	
<b>Total Credits</b>	<b>4</b>

\* The advising worksheet is unofficial and to be used for class planning purposes only. Please refer to the official catalog at <http://catalog.bismarckstate.edu> for the complete listing of the degree requirements.

# Program Certificate - Programs Containing 45 or more Prescribed Technical Program Requirements 2019-2020 Catalog

## Degree Checklist

- |                          |  |                          |   |
|--------------------------|--|--------------------------|---|
| <input type="checkbox"/> | Satisfied all degree seeking admission requirements                                      | <input type="checkbox"/> | Cleared all college obligations   |
| <input type="checkbox"/> | Completed a prescribed technical program   | <input type="checkbox"/> | Filed an Application for Degree in the Academic Records Office immediately following enrollment in final semester |
| <input type="checkbox"/> | Earned at least 15 semester hours of institutional credit from BSC                       |                          |   |
| <input type="checkbox"/> | Minimum of 2.00 GPA in a prescribed technical program                                    |                          |   |
| <input type="checkbox"/> | Minimum of 2.00 institutional GPA (BSC only)   |                          |   |
| <input type="checkbox"/> | Minimum of 2.00 cumulative GPA (BSC + Transfer)  |                          |   |
| <input type="checkbox"/> | Earned a minimum of 4 semester hours of general education credit from two areas of study |                          |   |

**Specific programs may require additional degree/program requirements; refer to your program.**

### Legend

(\*) Course not approved as GERTA

## General Education Requirements

Programs containing 45 or more credits must complete 4 credits of general education from two areas of study. Area of study is based on course prefix.

Gr.	Cr.		Gr.	Cr.		Gr.	Cr.	
_____	3	* ACCT 200	_____	3/1	BIOL 151	_____	3	ENGL 125
_____	3	* ACCT 201	_____	3/1	BIOL 170	_____	3	ENGL 211
_____	3	ANTH 170	_____	3/1	BIOL 220	_____	3	ENGL 221
_____	3	ANTH 171	_____	3/1	BIOL 221	_____	3	ENGL 222
_____	3	ART 110	_____	3/1	BIOL 250	_____	3	ENGL 233
_____	3	ART 122	_____	3/1	BOT 170	_____	3	ENGL 236
_____	3	ART 124	_____	3	* BUSN 120	_____	3	ENGL 238
_____	3	ART 130	_____	3/1	CHEM 110	_____	3	ENGL 251
_____	3	ART 210	_____	3/1	CHEM 112	_____	3	ENGL 252
_____	3	ART 211	_____	3/1	CHEM 114	_____	3	ENGL 261
_____	3	ART 220	_____	4/1	CHEM 115	_____	3	ENGL 262
_____	3	ART 221	_____	4/1	CHEM 116	_____	3	ENGL 278
_____	3	ART 230	_____	4/1	CHEM 121	_____	3/1	GEOG 121
_____	3	ART 250	_____	4/1	CHEM 122	_____	3	GEOG 161
_____	3	ART 251	_____	3	* CIS 147	_____	3/1	GEOL 102
_____	2	ART 265	_____	4	* CIS 164	_____	3/1	GEOL 105
_____	2	ART 266	_____	3	* CIS 280	_____	3	GIS 105
_____	3/1	ASTR 150	_____	3	CJ 201	_____	3	* GIS 107
_____	3	* BADM 202	_____	3	COMM 110	_____	3	HIST 101
_____	3	* BADM 210	_____	3	COMM 112	_____	3	HIST 102
_____	3	* BADM 240	_____	3	COMM 211	_____	3	HIST 103
_____	3	* BADM 281	_____	3	COMM 212	_____	3	HIST 104
_____	3	* BADM 282	_____	3	CSCI 101	_____	3	HIST 211
		Elements of Accounting I			General Biology II/Lab			Introduction to Professional Writing
		Elements of Accounting II			General Zoology/Lab			Introduction to Creative Writing
		Physical Anthropology and Archeology			Anatomy and Physiology I/Lab			Introduction to Drama
		Introduction to Cultural Anthropology			Anatomy and Physiology II/Lab			Introduction to Poetry
		Introduction to the Visual Arts			Survey of Tropical Biology/Lab			Fantasy and Science Fiction
		Two-Dimensional Design			Plant Form and Diversity/Lab			Women and Literature
		Three-Dimensional Design			Fundamentals of Business			Children's Literature
		Drawing I			Survey of Chemistry/Lab			British Literature I
		Art History I			Introduction to Forensic Science/Lab			British Literature II
		Art History II			Chemistry in Art/Lab			American Literature I
		Painting I			Introductory Chemistry/Lab			American Literature II
		Painting II			Intro to Organic and Biochemistry/Lab			Alternative Literature
		Drawing II			General Chemistry I/Lab			Physical Geography/Lab
		Ceramics I			General Chemistry II/Lab			World Regional Geography
		Ceramics II			Principles of Information Security			Historical Geology/Lab
		Sculpture I			Networking Fundamentals I			Physical Geology/Lab
		Sculpture II			Cyber Ethics			Fundamentals of GIS
		Meteorology/Lab			Introduction to Criminal Justice			GIS Applications
		Principles of Management			Fundamentals of Public Speaking			Western Civilization I
		Advertising I			Understanding Media and Social Change			Western Civilization II
		Sales			Oral Interpretation			United States to 1877
		Organizational Behavior			Interpersonal Communications			United States Since 1877
		Human Resource Management			Introduction to Computers			World Civilizations to 1500

_____ 1	*	BIOL 102	Introduction to Aquarium Keeping	_____ 3	CSCI 122	Beginning Visual Basic	_____ 3	HIST 212	World Civilizations since 1500
_____ 3		BIOL 109	The Living World	_____ 4	CSCI 160	Computer Science I	_____ 3	HIST 220	North Dakota History
_____ 3/1		BIOL 111	Concepts of Biology/Lab	_____ 4	CSCI 161	Computer Science II	_____ 3	HIST 222	History of the Western Frontier
_____ 3/1		BIOL 115	Concepts of Anatomy & Physiology/Lab	_____ 3	ECON 105	Elements of Economics	_____ 3	HIST 224	American Studies I
_____ 3		BIOL 124	Environmental Science	_____ 3	ECON 201	Principles of Microeconomics	_____ 3	HIST 225	American Studies II
_____ 3/1		BIOL 125	Introduction to Ecology/Lab	_____ 3	ECON 202	Principles of Macroeconomics	_____ 1-3	* HIST 243	Historical Investigations
_____ 3/1		BIOL 126	Human Biology/Lab	_____ 3	ENGL 110	College Composition I	_____ 3	HUMS 210	Integrated Cultural Studies
_____ 3/1		BIOL 150	General Biology I/Lab	_____ 3	ENGL 120	College Composition II			
_____ 1-4		HUMS 211	Integrated Cultural Excursion	_____ 3	PHIL 101	Introduction to Philosophy	_____ 3/1	SCNC 102	Physical Science II/Lab (Physics & Geology)
_____ 2		HUMS 212	Integrated Cultural Enrichment	_____ 3	PHIL 210	Ethics			
_____ 4		MATH 103	College Algebra	_____ 3	PHIL 220	Introduction to Logic	_____ 3/1	SCNC 103	Physical Science III/Lab (Astronomy & Meteorology)
_____ 3		MATH 104	Finite Mathematics	_____ 3	PHIL 250	Philosophy in Cinema			
_____ 2		MATH 105	Trigonometry	_____ 3	PHIL 253	Environmental Ethics	_____ 3	SOC 110	Introduction to Sociology
_____ 4		MATH 107	Pre-Calculus	_____ 3/1	PHYS 100	Concepts of Physics/Lab	_____ 3	SOC 115	Social Problems
_____ 3	*	MATH 137	Applied Algebra	_____ 3/1	PHYS 110	Introductory Astronomy/Lab	_____ 3	SOC 220	Family
_____ 3		MATH 146	Applied Calculus I	_____ 4/1	PHYS 111	College Physics I/Lab	_____ 3	SOC 221	Minority Relations
_____ 4		MATH 165	Calculus I	_____ 4/1	PHYS 212	College Physics II/Lab	_____ 3	SOC 235	Cultural Diversity
_____ 4		MATH 166	Calculus II	_____ 4/1	PHYS 251	University Physics I/Lab	_____ 3	SOC 251	Gerontology
_____ 3	*	MATH 208	Discrete Mathematics	_____ 4/1	PHYS 252	University Physics II/Lab	_____ 3	SOC 252	Criminology
_____ 3		MATH 210	Elementary Statistics	_____ 2/1	PLSC 110	World Food Crops/Lab	_____ 3	SOC 275	American Indian Studies
_____ 4	*	MATH 277	Mathematics for Elementary Teachers I	_____ 3	POLS 115	American Government	_____ 2/1	* SOIL 210	Introduction to Soil Science/Lab
_____ 3/1		MICR 202	Introductory Microbiology/Lab	_____ 3	POLS 116	State and Local Government	_____ 4	SPAN 101	First Year Spanish I
_____ 3		MUSC 100	Music Appreciation	_____ 3	POLS 220	International Politics	_____ 4	SPAN 102	First Year Spanish II
_____ 1		MUSC 117	Concert Choir	_____ 3	PSYC 100	Human Relations In Organizations	_____ 4	SPAN 201	Second Year Spanish I
_____ 1		MUSC 118	Chamber Choir	_____ 3	PSYC 111	Introduction to Psychology	_____ 4	SPAN 202	Second Year Spanish II
_____ 1		MUSC 121	String Ensemble	_____ 3	* PSYC 211	Introduction to Behavior Modification	_____ 3	SWK 256	Development of Social Welfare
_____ 1		MUSC 132	Wind Ensemble	_____ 3	PSYC 250	Developmental Psychology	_____ 3	THEA 110	Introduction to Theatre Arts
_____ 1		MUSC 133	Woodwind Ensemble I	_____ 3	* PSYC 261	Psychology of Adjustment	_____ 3	THEA 161	Acting I
_____ 1		MUSC 134	Woodwind Ensemble II	_____ 3	PSYC 270	Abnormal Psychology	_____ 3	THEA 180	Dramatic Literature and Style I
_____ 1		MUSC 135	Brass Ensemble I	_____ 3	RELS 120	Religion in America	_____ 3	THEA 181	Dramatic Literature and Style II
_____ 1		MUSC 136	Brass Ensemble II	_____ 3	RELS 201	Life and Letters of Paul	_____ 3	THEA 261	Acting II
_____ 1		MUSC 137	Jazz Ensemble	_____ 3	RELS 203	World Religions			
_____ 1	*	MUSC 138	Percussion Ensemble	_____ 3	RELS 220	Old Testament			
_____ 1		MUSC 145	Applied Music	_____ 3	RELS 230	New Testament			
_____ 1		MUSC 146	Applied Music - Major	_____ 3/1	SCNC 101	Physical Science I/Lab (Biology & Chemistry)			
_____ 3	*	NUTR 240	Principles of Nutrition						

Transfer Course

Transfer Course

Transfer Course

## Academic Skills Courses (ASC)

The following Academic Skills Courses (ASC) are pre-college courses that indicate the need for college preparation work before enrollment in college level courses. These courses will not fulfill general education requirements, institutional credit requirements and cannot be included in the semester hours required for a Program Certificate.

Gr.	Cr.		Gr.	Cr.		
_____ 2		ASC 082	Effective Reading	_____ 2	ASC 94	College Writing Prep I
_____ 2		ASC 91	Algebra Prep I	_____ 2	ASC 95	College Writing Prep II
_____ 2		ASC 92	Algebra Prep II	_____ 2	ASC 96	College Writing Prep III
_____ 2		ASC 93	Algebra Prep III	_____ 3/1	ASC 098	Basic Biology/Lab

Advisor: _____
Office: _____
Phone: _____
Email: _____

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