



# Mechanical Maintenance Technology

## Program Certificate

Advising Worksheet\* 2021-2022

Prescribed Technical Program Total	50
General Education Total	4
<b>Total Degree Credits</b>	<b>54</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	3
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	5
<b>Total Credits</b>			<b>17</b>

### Sophomore Fall Semester

Prescribed Technical Program Requirements			
WELD	110	OFC Operations	2
WELD	118	PAC and CAC Operations	2
WELD	135	Welding Principles	2
WELD	140	Methods in GMAW and FCAW	2
WELD	170	SMAW Operations	2
WELD	173	Methods in SMAW Operations	3
MMAT	205	Basic Electricity and Electronics	3
<b>Total Credits</b>			<b>16</b>

### General Education Requirements

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

1.	4
2.	
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<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 2021-2022 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                          |
| <input type="checkbox"/> | Earned at least 15 semester hours of institutional credit from BSC                       |                          | following enrollment in final semester  |
| <input type="checkbox"/> | Minimum of 2.00 GPA in a prescribed technical program                                    |                          | <b>Specific programs may require additional degree/program requirements; refer to your program.</b> |
| <input type="checkbox"/> | Minimum of 2.00 institutional GPA (BSC only)   | <input type="checkbox"/> |   |
| <input type="checkbox"/> | Minimum of 2.00 cumulative GPA (BSC + Transfer)  | <input type="checkbox"/> |   |
| <input type="checkbox"/> | Earned a minimum of 4 semester hours of general education credit from two areas of study | <input type="checkbox"/> |   |

**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	General Biology I/Lab	3	ENGL 125	Introduction to Professional Writing
3	*	ACCT 201	3/1	BIOL 170	General Zoology/Lab	3	ENGL 211	Introduction to Creative Writing
3		ANTH 170	3/1	BIOL 220	Anatomy and Physiology I/Lab	3	ENGL 221	Introduction to Drama
3		ANTH 171	3/1	BIOL 221	Anatomy and Physiology II/Lab	3	ENGL 222	Introduction to Poetry
3		ART 110	3/1	BIOL 250	Survey of Tropical Biology/Lab	3	ENGL 233	Fantasy and Science Fiction
3		ART 122	3/1	BOT 170	Plant Form and Diversity/Lab	3	ENGL 236	Women and Literature
3		ART 124	3	* BUSN 120	Fundamentals of Business	3	ENGL 238	Children's Literature
3		ART 130	3/1	CHEM 110	Survey of Chemistry/Lab	3	ENGL 251	British Literature I
3		ART 210	3/1	CHEM 112	Introduction to Forensic Science/Lab	3	ENGL 252	British Literature II
3		ART 211	3/1	CHEM 114	Chemistry in Art/Lab	3	ENGL 261	American Literature I
3		ART 220	4/1	CHEM 115	Introductory Chemistry/Lab	3	ENGL 262	American Literature II
3		ART 221	4/1	CHEM 116	Intro to Organic and Biochemistry/Lab	3	ENGL 278	Alternative Literature
3		ART 230	4/1	CHEM 121	General Chemistry I/Lab	3/1	GEOG 121	Physical Geography/Lab
3		ART 250	4/1	CHEM 122	General Chemistry II/Lab	3	GEOG 161	World Regional Geography
3		ART 251	3	* CIS 147	Principles of Information Security	3/1	GEOL 102	Historical Geology/Lab
2		ART 265	4	* CIS 164	Networking Fundamentals I	3/1	GEOL 105	Physical Geology/Lab
2		ART 266	3	* CIS 280	Cyber Ethics	3	GIS 105	Fundamentals of GIS
3/1		ASTR 150	3	CJ 201	Introduction to Criminal Justice	3	* GIS 107	GIS Applications
3	*	BADM 202	3	COMM 110	Fundamentals of Public Speaking	3	HIST 101	Western Civilization I
3	*	BADM 210	3	COMM 112	Understanding Media and Social Change	3	HIST 102	Western Civilization II
3	*	BADM 240	3	COMM 211	Oral Interpretation	3	HIST 103	United States to 1877
3	*	BADM 281	3	COMM 212	Interpersonal Communications	3	HIST 104	United States Since 1877
3	*	BADM 282	3	CSCI 101	Introduction to Computers	3	HIST 211	World Civilizations to 1500
1	*	BIOL 102	3	CSCI 122	Beginning Visual Basic	3	HIST 212	World Civilizations since 1500
3		BIOL 109	4	CSCI 160	Computer Science I	3	HIST 220	North Dakota History
3/1		BIOL 111	4	CSCI 161	Computer Science II	3	HIST 222	History of the Western Frontier
3/1		BIOL 115	3	ECON 105	Elements of Economics	3	HIST 224	American Studies I
3		BIOL 124	3	ECON 201	Principles of Microeconomics	3	HIST 225	American Studies II
3/1		BIOL 125	3	ECON 202	Principles of Macroeconomics	1-3	* HIST 243	Historical Investigations
3/1		BIOL 126	3	ENGL 110	College Composition I	3	HUMS 210	Integrated Cultural Studies
3/1		BIOL 150	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	_____ 3/1	SCNC 103	Physical Science III/Lab (Astronomy & Meteorology)
_____ 4	MATH 103	College Algebra	_____ 3	PHIL 220	Introduction to Logic	_____ 3	SOC 110	Introduction to Sociology
_____ 3	MATH 104	Finite Mathematics	_____ 3	PHIL 250	Philosophy in Cinema	_____ 3	SOC 115	Social Problems
_____ 2	MATH 105	Trigonometry	_____ 3	PHIL 253	Environmental Ethics	_____ 3	SOC 220	Family
_____ 4	MATH 107	Pre-Calculus	_____ 3/1	PHYS 100	Concepts of Physics/Lab	_____ 3	SOC 221	Minority Relations
_____ 3	* MATH 137	Applied Algebra	_____ 3/1	PHYS 110	Introductory Astronomy/Lab	_____ 3	SOC 235	Cultural Diversity
_____ 3	MATH 146	Applied Calculus I	_____ 4/1	PHYS 211	College Physics I/Lab	_____ 3	SOC 251	Gerontology
_____ 4	MATH 165	Calculus I	_____ 4/1	PHYS 212	College Physics II/Lab	_____ 3	SOC 252	Criminology
_____ 4	MATH 166	Calculus II	_____ 4/1	PHYS 251	University Physics I/Lab	_____ 3	SOC 275	American Indian Studies
_____ 3	* MATH 208	Discrete Mathematics	_____ 4/1	PHYS 252	University Physics II/Lab	_____ 2/1 *	SOIL 210	Introduction to Soil Science/Lab
_____ 3	MATH 210	Elementary Statistics	_____ 2/1	PLSC 110	World Food Crops/Lab	_____ 4	SPAN 101	First Year Spanish I
_____ 4	* MATH 277	Mathematics for Elementary Teachers I	_____ 3	POLS 115	American Government	_____ 4	SPAN 102	First Year Spanish II
_____ 3/1	MICR 202	Introductory Microbiology/Lab	_____ 3	POLS 116	State and Local Government	_____ 4	SPAN 201	Second Year Spanish I
_____ 3	MUSC 100	Music Appreciation	_____ 3	POLS 220	International Politics	_____ 4	SPAN 202	Second Year Spanish II
_____ 1	MUSC 117	Concert Choir	_____ 3	PSYC 100	Human Relations In Organizations	_____ 3	SWK 256	Development of Social Welfare
_____ 1	MUSC 118	Chamber Choir	_____ 3	PSYC 111	Introduction to Psychology	_____ 3	THEA 110	Introduction to Theatre Arts
_____ 1	MUSC 121	String Ensemble	_____ 3	* PSYC 211	Introduction to Behavior Modification	_____ 3	THEA 161	Acting I
_____ 1	MUSC 132	Wind Ensemble	_____ 3	PSYC 250	Developmental Psychology	_____ 3	THEA 180	Dramatic Literature and Style I
_____ 1	MUSC 133	Woodwind Ensemble I	_____ 3	* PSYC 261	Psychology of Adjustment	_____ 3	THEA 181	Dramatic Literature and Style II
_____ 1	MUSC 134	Woodwind Ensemble II	_____ 3	PSYC 270	Abnormal Psychology	_____ 3	THEA 261	Acting II
_____ 1	MUSC 135	Brass Ensemble I	_____ 3	RELS 120	Religion in America			
_____ 1	MUSC 136	Brass Ensemble II	_____ 3	RELS 201	Life and Letters of Paul			
_____ 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.	ASC 082	Effective Reading	_____ Gr.	_____ Cr.	ASC 94	College Writing Prep I
_____ 2	_____ 2	ASC 91	Algebra Prep I	_____ 2	_____ 2	ASC 95	College Writing Prep II
_____ 2	_____ 2	ASC 92	Algebra Prep II	_____ 2	_____ 2	ASC 96	College Writing Prep III
_____ 2	_____ 2	ASC 93	Algebra Prep III	_____ 3/1	_____ 3/1	ASC 098	Basic Biology/Lab

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