



# Instrumentation & Control Technology

## Program Certificate

Advising Worksheet\* 2018-2019

Prescribed Technical Program Total	58
General Education Total	4
<b>Total Degree Credits</b>	<b>62</b>

### Freshman Fall Semester

#### Prescribed Technical Program Requirements

ELEC	100/100L	Direct Current Analysis/Lab	5
ELEC	118/118L	Solid State Devices I/Lab	5
ELEC	114/114L	Digital Electronics I/Lab	4
<b>Total Credits</b>			<b>14</b>

### Freshman Spring Semester

#### Prescribed Technical Program Requirements

ELEC	130/130L	Active Devices/Lab	5
ELEC	120/120L	AC Analysis/Lab	5
ELEC	115/115L	Digital Electronics II/Lab	4
<b>Total Credits</b>			<b>14</b>

### Sophomore Fall Semester

#### Prescribed Technical Program Requirements

ICTL	205/205L	Mechanical Practices/Lab	5
ICTL	215/215L	Instrument Drawings & Documentation/Lab	5
ICTL	225/225L	Input & Output Devices/Lab	5
<b>Total Credits</b>			<b>15</b>

### Sophomore Spring Semester

#### Prescribed Technical Program Requirements

ICTL	235/235L	Motors & Controllers/Lab	5
ICTL	245/245L	Controls/Lab	5
ICTL	255/255L	Automation Overview/Lab	5
<b>Total Credits</b>			<b>15</b>

### General Education Requirements

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

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

\*This advising worksheet is unofficial and to be used for class planning purposes only. Please refer to 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 2018-2019 Catalog

## Degree Checklist

- |                          |  |                          |   |
|--------------------------|--|--------------------------|---|
| <input type="checkbox"/> | Completed a prescribed technical program   | <input type="checkbox"/> | Cleared all college obligations   |
| <input type="checkbox"/> | Earned at least 15 semester hours of institutional credit from BSC                       | <input type="checkbox"/> | Declared program of study is degree seeking   |
| <input type="checkbox"/> | Minimum of 2.00 GPA in a prescribed technical program                                    | <input type="checkbox"/> | Filed an Application for Degree in the Academic Records Office                                      |
| <input type="checkbox"/> | Minimum of 2.00 institutional GPA (BSC only)   |                          |   |
| <input type="checkbox"/> | Minimum of 2.00 cumulative GPA (BSC + Transfer)  |                          | <b>Specific programs may require additional degree/program requirements; refer to your program.</b> |
| <input type="checkbox"/> | Earned a minimum of 4 semester hours of general education credit from two areas of study |                          |   |

### 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 II/Lab	3	ENGL 125	Introduction to Professional Writing
3	*	ACCT 201	3/1	BIOL 220	Anatomy and Physiology I/Lab	3	ENGL 211	Introduction to Creative Writing
3		ANTH 170	3/1	BIOL 221	Anatomy and Physiology II/Lab	3	ENGL 221	Introduction to Drama
3		ART 110	3/1	BIOL 250	Survey of Tropical Biology/Lab	3	ENGL 222	Introduction to Poetry
3		ART 122	3/1	BOT 170	Plant Form and Diversity/Lab	3	ENGL 233	Fantasy and Science Fiction
3		ART 124	3	* BUSN 120	Fundamentals of Business	3	ENGL 236	Women and Literature
3		ART 130	3/1	CHEM 110	Survey of Chemistry/Lab	3	ENGL 238	Children's Literature
3		ART 210	3/1	CHEM 112	Introduction to Forensic Science/Lab	3	ENGL 251	British Literature I
3		ART 211	3/1	CHEM 114	Chemistry in Art/Lab	3	ENGL 252	British Literature II
3		ART 220	4/1	CHEM 115	Introductory Chemistry/Lab	3	ENGL 261	American Literature I
3		ART 221	4/1	CHEM 116	Intro to Organic and Biochemistry/Lab	3	ENGL 262	American Literature II
3		ART 230	4/1	CHEM 121	General Chemistry I/Lab	3	ENGL 278	Alternative Literature
3		ART 250	4/1	CHEM 122	General Chemistry II/Lab	3/1	GEOG 121	Physical Geography/Lab
3		ART 251	3	* CIS 147	Principles of Information Security	3	GEOG 161	World Regional Geography
2		ART 265	4	* CIS 164	Networking Fundamentals I	3/1	GEOL 102	Historical Geology/Lab
2		ART 266	3	* CIS 280	Cyber Ethics	3/1	GEOL 105	Physical Geology/Lab
3/1		ASTR 150	3	CJ 201	Introduction to Criminal Justice	3	GIS 105	Fundamentals of GIS
3	*	BADM 202	3	COMM 110	Fundamentals of Public Speaking	3	* GIS 107	GIS Applications
3	*	BADM 210	3	COMM 112	Understanding Media and Social Change	3	HIST 101	Western Civilization I
3	*	BADM 240	3	COMM 211	Oral Interpretation	3	HIST 102	Western Civilization II
3	*	BADM 281	3	COMM 212	Interpersonal Communications	3	HIST 103	United States to 1877
3	*	BADM 282	3	CSCI 101	Introduction to Computers	3	HIST 104	United States Since 1877
1	*	BIOL 102	3	CSCI 122	Beginning Visual Basic	3	HIST 211	World Civilizations to 1500
3		BIOL 109	4	CSCI 160	Computer Science I	3	HIST 212	World Civilizations since 1500
3/1		BIOL 111	4	CSCI 161	Computer Science II	3	HIST 220	North Dakota History
3/1		BIOL 115	3	ECON 105	Elements of Economics	3	HIST 222	History of the Western Frontier
3		BIOL 124	3	ECON 201	Principles of Microeconomics	3	HIST 224	American Studies I
3/1		BIOL 125	3	ECON 202	Principles of Macroeconomics	3	HIST 225	American Studies II
3/1		BIOL 126	3	ENGL 110	College Composition I	1-3	* HIST 243	Historical Investigations
3/1		BIOL 150	3	ENGL 120	College Composition II	3	HUMS 210	Integrated Cultural Studies

_____	1-4	HUMS 211	Integrated Cultural Excursion
_____	2	HUMS 212	Integrated Cultural Enrichment
_____	4	MATH 103	College Algebra
_____	3	MATH 104	Finite Mathematics
_____	2	MATH 105	Trigonometry
_____	4	MATH 107	Pre-Calculus
_____	3	* MATH 137	Applied Algebra
_____	3	MATH 146	Applied Calculus I
_____	4	MATH 165	Calculus I
_____	4	MATH 166	Calculus II
_____	3	* MATH 208	Discrete Mathematics
_____	3	MATH 210	Elementary Statistics
_____	4	* MATH 277	Mathematics for Elementary Teachers I
_____	3/1	MICR 202	Introductory Microbiology/Lab
_____	3	MUSC 100	Music Appreciation
_____	1	MUSC 117	Concert Choir
_____	1	MUSC 118	Chamber Choir
_____	1	MUSC 121	String Ensemble
_____	1	MUSC 132	Wind Ensemble
_____	1	MUSC 133	Woodwind Ensemble I
_____	1	MUSC 134	Woodwind Ensemble II
_____	1	MUSC 135	Brass Ensemble I
_____	1	MUSC 136	Brass Ensemble II
_____	1	MUSC 137	Jazz Ensemble
_____	1	* MUSC 138	Percussion Ensemble
_____	1	MUSC 145	Applied Music
_____	1	MUSC 146	Applied Music - Major
_____	3	* NUTR 240	Principles of Nutrition

Transfer Course

_____	3	PHIL 101	Introduction to Philosophy
_____	3	PHIL 210	Ethics
_____	3	PHIL 220	Introduction to Logic
_____	3	PHIL 250	Philosophy in Cinema
_____	3	PHIL 253	Environmental Ethics
_____	3/1	PHYS 100	Concepts of Physics/Lab
_____	3/1	PHYS 110	Introductory Astronomy/Lab
_____	4/1	PHYS 211	College Physics I/Lab
_____	4/1	PHYS 212	College Physics II/Lab
_____	4/1	PHYS 251	University Physics I/Lab
_____	4/1	PHYS 252	University Physics II/Lab
_____	2/1	PLSC 110	World Food Crops/Lab
_____	3	POLS 115	American Government
_____	3	POLS 116	State and Local Government
_____	3	POLS 220	International Politics
_____	3	PSYC 111	Introduction to Psychology
_____	3	* PSYC 211	Introduction to Behavior Modification
_____	3	PSYC 250	Developmental Psychology
_____	3	* PSYC 261	Psychology of Adjustment
_____	3	PSYC 270	Abnormal Psychology
_____	3	RELS 120	Religion in America
_____	3	RELS 201	Life and Letters of Paul
_____	3	RELS 203	World Religions
_____	3	RELS 220	Old Testament
_____	3	RELS 230	New Testament
_____	3/1	SCNC 101	Physical Science I/Lab (Biology & Chemistry)

Transfer Course

_____	3/1	SCNC 102	Physical Science II/Lab (Physics & Geology)
_____	3/1	SCNC 103	Physical Science III/Lab (Astronomy & Meteorology)
_____	3	SOC 110	Introduction to Sociology
_____	3	SOC 115	Social Problems
_____	3	SOC 220	Family
_____	3	SOC 221	Minority Relations
_____	3	SOC 235	Cultural Diversity
_____	3	SOC 251	Gerontology
_____	3	SOC 252	Criminology
_____	3	SOC 275	American Indian Studies
_____	2/1 *	SOIL 210	Introduction to Soil Science/Lab
_____	4	SPAN 101	First Year Spanish I
_____	4	SPAN 102	First Year Spanish II
_____	4	SPAN 201	Second Year Spanish I
_____	4	SPAN 202	Second Year Spanish II
_____	3	SWK 256	Development of Social Welfare
_____	3	THEA 110	Introduction to Theatre Arts
_____	3	THEA 161	Acting I
_____	3	THEA 180	Dramatic Literature and Style I
_____	3	THEA 181	Dramatic Literature and Style II
_____	3	THEA 261	Acting II

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.		Gr.	Cr.				
_____	2	ASC 082	Effective Reading	_____	2	ASC 91	Algebra Prep I	_____	2	ASC 94	College Writing Prep I
_____	3	ASC 087	College Writing Prep	_____	2	ASC 92	Algebra Prep II	_____	2	ASC 95	College Writing Prep II
_____	1	ASC 088	Composition Lab	_____	2	ASC 93	Algebra Prep III	_____	2	ASC 96	College Writing Prep III
								_____	3/1	ASC 098	Basic Biology/Lab

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

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