



# Electrical Transmission Systems Technology

## Program Certificate

Advising Worksheet\* 2016-2017

Prescribed Technical Program Total	51
General Education Total	15
<b>Total Degree Credits</b>	<b>66</b>

Semester I (Fall/Spring)	Completed
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Prescribed Technical Program Requirements			
ETST	240	Power Industry Concepts	3
ETST	242	Applied Mathematics for System Operators	2
ENRT	106	DC Fundamentals (also offered in summer)	2
ENRT	108	AC Fundamentals (also offered in summer)	3
ETST	260	Electrical Diagram Interpretation	2
<b>Total Credits</b>			<b>12</b>

Semester II (Fall/Spring)	Completed
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Prescribed Technical Program Requirements			
ETST	250	Electrical Generation Theory	4
ETST	254	System Elements I - Substations	3
ETST	256	System Elements II - Transformers	3
ETST	258	System Elements III - Protective Relaying	3
<b>Total Credits</b>			<b>13</b>

Semester III (Fall/Spring)	Completed
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Prescribed Technical Program Requirements			
ETST	262	Power System Operations	3
ETST	266	Interconnected System Operations	3
ETST	268	Power Flow	3
ETST	270	System Operator Work Practices	3
<b>Total Credits</b>			<b>12</b>

Semester IV (Fall/Spring)	Completed
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Prescribed Technical Program Requirements			
ETST	272	Power System Safety	3
ETST	274	Communications & Control Technology	2
ETST	276	Power System Economics	3
ETST	278	Power System Emergency Concepts	3
ETST	280	Reliability Policies & Procedures	3
<b>Total Credits</b>			<b>14</b>

General Education Requirements	Completed
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Select 4 credits of General Education in 2 areas of study.

1.	4	
2.		
<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 2016-2017 Catalog

## Degree Checklist

- Earned a minimum of 15 institutional credits (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 Prescribed Technical Program GPA

- Completed prescribed technical program requirements
- Cleared all college obligations
- Filed an Application for Degree

Programs containing 45 or more credits:

- Earned a minimum of 4 credits of General Education from two areas of study

-Academic Skills Courses (ASC) do not count toward graduation

### 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.

Gr.	Cr.			Gr.	Cr.			Gr.	Cr.			
	3	*	ACCT 200	Elements of Accounting I		3	ENGL 110	College Composition I		1	MUSC 145	Applied Music
	3	*	ACCT 201	Elements of Accounting II		3	ENGL 120	College Composition II		1	MUSC 146	Applied Music - Major
	3		ART 110	Introduction to the Visual Arts		3	ENGL 125	Introduction to Professional Writing		3	* NUTR 240	Principles of Nutrition
	3		ART 122	Two-Dimensional Design		3	ENGL 211	Introduction to Creative Writing		3	PHIL 101	Introduction to Philosophy
	3		ART 124	Three-Dimensional Design		3	ENGL 221	Introduction to Drama		3	PHIL 210	Ethics
	3		ART 130	Drawing I		3	* ENGL 222	Introduction to Poetry		3	PHIL 220	Introduction to Logic
	3		ART 210	Art History I		3	ENGL 233	Fantasy and Science Fiction		3	PHIL 250	Philosophy in Cinema
	3		ART 211	Art History II		3	ENGL 236	Women and Literature		3	PHIL 253	Environmental Ethics
	3		ART 220	Painting I		3	ENGL 238	Children's Literature		3/1	PHYS 100	Concepts of Physics/Lab
	3		ART 221	Painting II		3	ENGL 251	British Literature I		3/1	PHYS 110	Introductory Astronomy/Lab
	3		ART 230	Drawing II		3	ENGL 252	British Literature II		3/1	PHYS 211	College Physics I/Lab
	3		ART 250	Ceramics I		3	ENGL 261	American Literature I		3/1	PHYS 212	College Physics II/Lab
	3		ART 251	Ceramics II		3	ENGL 262	American Literature II		4/1	PHYS 251	University Physics I/Lab
	2		ART 265	Sculpture I		3	ENGL 278	Alternative Literature		4/1	PHYS 252	University Physics II/Lab
	2		ART 266	Sculpture II		3/1	GEOG 121	Physical Geography/Lab		2/1	PLSC 110	World Food Crops/Lab
	3/1		ASTR 150	Meteorology/Lab		3/1	GEOG 102	Historical Geology/Lab		3	POLS 115	American Government
	3	*	BADM 202	Principles of Management		3/1	GEOG 105	Physical Geology/Lab		3	POLS 116	State and Local Government
	3	*	BADM 210	Advertising I		3	GIS 105	Fundamentals of GIS		3	POLS 220	International Politics
	3	*	BADM 240	Sales		3	* GIS 107	GIS Applications		3	PSYC 111	Introduction to Psychology
	3	*	BADM 281	Organizational Behavior		3	HIST 101	Western Civilization I		3	* PSYC 211	Introduction to Behavior Modification
	3	*	BADM 282	Human Resource Management		3	HIST 102	Western Civilization II		3	PSYC 250	Developmental Psychology
	1	*	BIOL 102	Introduction to Aquarium Keeping		3	HIST 103	United States to 1877		3	* PSYC 261	Psychology of Adjustment
	3		BIOL 109	The Living World		3	HIST 104	United States since 1877		3	PSYC 270	Abnormal Psychology
	3/1		BIOL 111	Concepts of Biology/Lab		3	HIST 220	North Dakota History		3	RELS 120	Religion in America
	3/1		BIOL 115	Human Structure and Function/Lab		3	HIST 222	History of the Western Frontier		3	RELS 201	Life and Letters of Paul
	3		BIOL 124	Environmental Science		3	HIST 224	American Studies I		3	RELS 203	World Religions
	3/1		BIOL 126	Human Biology/Lab		3	HIST 225	American Studies II		3	RELS 220	Old Testament
	3/1		BIOL 150	General Biology I/Lab		1-3	* HIST 243	Historical Investigations		3	RELS 230	New Testament
	3/1		BIOL 151	General Biology II/Lab		3	HUMS 210	Integrated Cultural Studies		3/1	SCNC 101	Physical Science I/Lab (Biology & Chemistry)
	3/1		BIOL 220	Anatomy and Physiology I/Lab		1-4	HUMS 211	Integrated Cultural Excursion				
	3/1		BIOL 221	Anatomy and Physiology II/Lab		2	HUMS 212	Integrated Cultural Enrichment		3/1	SCNC 102	Physical Science II/Lab (Physics & Geology)
	3/1		BIOL 250	Survey of Tropical Biology/Lab		4	MATH 103	College Algebra				
	3/1		BIOL 251	Community Ecology/Lab		3	MATH 104	Finite Mathematics		3/1	SCNC 103	Physical Science III/Lab (Astronomy & Meteorology)

3/1	BOT 170	Plant Form and Diversity/Lab	2	MATH 105	Trigonometry	3	SOC 110	Introduction to Sociology
3	* BUSN 120	Fundamentals of Business	4	MATH 107	Pre-Calculus	3	SOC 115	Social Problems
3/1	CHEM 110	Survey of Chemistry/Lab	3	* MATH 137	Applied Algebra	3	SOC 220	Family
3/1	CHEM 112	Introduction to Forensic Science/Lab	3	MATH 146	Applied Calculus I	3	SOC 221	Minority Relations
3/1	CHEM 114	Chemistry in Art/Lab	4	MATH 165	Calculus I	3	SOC 235	Cultural Diversity
4/1	CHEM 115	Introductory Chemistry/Lab	4	MATH 166	Calculus II	3	SOC 251	Gerontology
4/1	CHEM 116	Intro to Organic and Biochemistry/Lab	3	* MATH 208	Discrete Mathematics	3	SOC 252	Criminology
4/1	CHEM 121	General Chemistry I/Lab	3	MATH 210	Elementary Statistics	3	SOC 275	American Indian Studies
4/1	CHEM 122	General Chemistry II/Lab	4	* MATH 277	Math for Elementary Teachers I	2/1 *	SOIL 210	Introduction to Soil Science/Lab
4	* CIS 164	Networking Fundamentals I	3/1	MICR 202	Introductory Microbiology/Lab	4	SPAN 101	First Year Spanish I
3	CJ 201	Introduction to Criminal Justice	3	MUSC 100	Music Appreciation	4	SPAN 102	First Year Spanish II
3	COMM 110	Fundamentals of Public Speaking	1	MUSC 117	Concert Choir	4	SPAN 201	Second Year Spanish I
3	COMM 211	Oral Interpretation	1	MUSC 118	Chamber Choir	4	SPAN 202	Second Year Spanish II
3	* COMM 212	Interpersonal Communications	1	MUSC 121	String Ensemble	3	SWK 256	Development of Social Welfare
3	CSCI 101	Introduction to Computers	1	MUSC 132	Wind Ensemble	3	THEA 110	Introduction to Theatre Arts
3	CSCI 122	Beginning Visual Basic	1	MUSC 133	Woodwind Ensemble I	3	THEA 161	Acting I
4	CSCI 160	Computer Science I	1	MUSC 134	Woodwind Ensemble II	3	THEA 261	Acting II
4	CSCI 161	Computer Science II	1	MUSC 135	Brass Ensemble I			
3	ECON 105	Elements of Economics	1	MUSC 136	Brass Ensemble II			
3	ECON 201	Principles of Microeconomics	1	MUSC 137	Jazz Ensemble			
3	ECON 202	Principles of Macroeconomics	1	* MUSC 138	Percussion Ensemble			

Transfer Course

Transfer Course

Transfer Course

## Academic Skills Courses (ASC)

The following Academic Skills Courses (ASC), as well as Math 102, are pre-college courses that 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			

Advisor: \_\_\_\_\_

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